

WG-500P & WG-500P M

Hotspot in a Printer

User Manual

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1 Introduction

The WG-500P is a compact intelligent gateway. It provides Plug' Play Internet access, advanced security and network management.

The WG-500P is designed for service providers, system integrator or hotspot venue operator without backend-RADIUS-Server to have integrated solution for rapid deployment, which can start hotspot service quickly and easily and enhance service performance.

The WG-500P is an ideal solution for hotel lobbies, coffee bars, airport lounges, conference facilities and other sites that commonly host business travelers, and offers instant high-speed Internet connections. With its IP Plug and Play technology, it accepts any client configuration login, when client open browser the WG-500P immediately recognizes new end-user and redirects their browser to customized Web pages. There's no need for end-user to change any of their default network (Static IP), e-mail (SMTP Server behind firewall), or browser settings (HTTP Proxy) or load any special software to access hotspot service. It's completely Plug' Play with any browser.

The WG-500P provides QR code service. You can install any QR code APP to your mobile device, and then scan QR code on the ticket to get access of the Internet! You could save the time to key in the account and the password.

Besides as a gateway printer, Handlink WG-500P M can also be a pure printer connected with MikroTik RouterOS device. It supports Mikrotik RouterOS v6.5/v6.7 now. If you need it, please directly go to Chapter **6 MikroTik Compatible Account Printer**.

1-1 Package Contents

Please inspect your package. The following items should be included:

WG-500P

- One WG-500P
- One Thermal papers (50 meter)
- One Power Adapter
- One Ethernet Cable (1.5 meter)
- One Quick Installation Guide
- Two Detachable Antenna
- One Product CD
- One Wi-Fi Label

If any of the above items are damaged or missing, please contact your dealer immediately.

1-2 Features

- Wireless data rates up to 300 Mbps
- Supports up to 30 simultaneous Users
- IP Plug and Play (iPnP)
- Comprehensive security
 - 64/128-bit WEP encryption
 - WPA encryption
 - WPA2 Encryption
 - IP/URL filtering
- Intelligent Management
- Built-in AAA (Authentication/Accounting/Authorization) and Billing mechanism
- Internet access via QR code scanning

Note: The "PnP" Function only can be used with TCP/IP-based Network.

1-3 Precautions

- Never remove or open the cover. You may suffer serious injury if you touch these parts.
- Never install the system in the wet locations.
- Use only the original fitting AC power adapter otherwise there is a danger of severe electrical shock.
- Avoid exposing the WG-500P to direct sunlight or another heat source.
- Choose a well-ventilated area to position your WG-500P.

1-4 Outlook



Figure 1-4-1 WG-500P

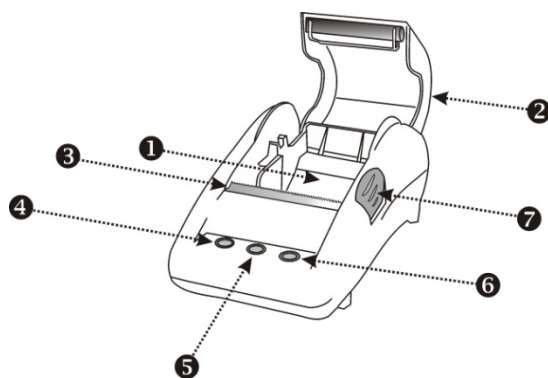


Figure 1-4-2 Front Panel

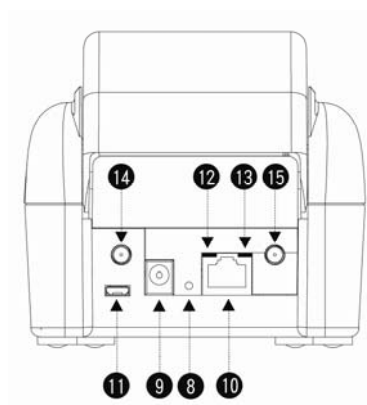


Figure 1-4-3 Rear Panel

1. Paper roll housing
2. Printer Cover
3. Tear Bar, for paper cutting
4. Button A
5. Button B
6. Button C
7. Push Button, for printer cover opening
8. Reset Button
9. DC power supply connector
10. RJ45 port
11. Micro USB connector
12. WLAN LED (Green)
13. UPLINK LED(Yellow)
14. SMA connector
15. SMA connector

● **WLAN LED:**

Off: The wireless is not ready.

Green light: The WG-500P has established a valid wireless connection.

Green Blinking: The wireless connection is active.

- **UPLINK LED:**

Off: A port has not established any network connection.

Yellow light: A port has established a valid 10/100 Mbps network connection.

Yellow Blinking: 10/100 Mbps traffic is traversing the port.

- **Reset Button:** The WG-500P has a reset button at the rear panel of the device. Use this function to reset the system back to factory defaults.
- **Power Jack:** Used to connect the external power supply with the WG-500P.

1-4-1 Printing a test page

After you have installed your printer, you should print a test page to make sure the printer is functioning properly. To do this act as follows:

1. Turn the printer off.
2. Hold down the button A for approximately five seconds, and then turn the printer on.
3. The printer will print a test page.

1-4-2 How to load paper rolls

Please follow the steps to correctly load paper rolls.

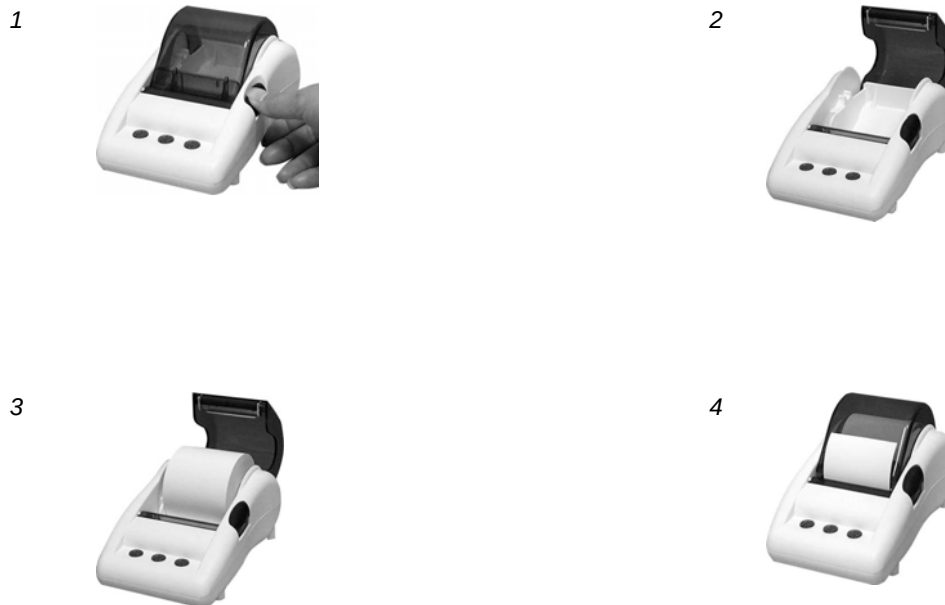


Figure 1-4-4 Paper rolls loading

1-5 Technical Specifications

1-5-1 Hardware Specifications

Network Specification

- IEEE802.3 10BaseT Ethernet
- IEEE802.3u 100BaseTX Fast Ethernet
- IEEE802.11b/g/n Wireless LAN
- ANSI/IEEE 802.3 NWay auto-negotiation
- Wi-Fi Compatible

Connectors

- One WAN Port (10BaseT/100BaseTX Auto cross-over)
- One Micro USB connector

Encryption

- WEP (Wired Equivalent Privacy) 64/128-bit RC4
- WPA (Wi-Fi Protected Access)
- WPA2 (Wi-Fi Protected Access)

External Antenna Type

- Dual detachable diversity antenna with reverse SMA

LED Indicators

- One POWER LED
- One WAN 10/100M Link/Activity LED
- One Wireless Link/Activity LED
- One System LED

Power Requirement

- External Power Adapter
- Input: 100-240 VAC, 50/60 Hz
- Output: 12V, 1.5A

Environment Conditions

- Operating Temperature: 0 to 50°C

- Storage Temperature: -10 to 60°C
- Operating Humidity: 20~80% non-condensing
- Storage Humidity: 20% to 90% non-condensing

Certifications

- FCC part 15 Class B, CE , C-Tick , VCCI

Dimension

- Size: 109×155×90 (W×D×H)mm
- Weight: About 340g (Net)

Printer Tray

- Push button: push to open printer cover
- Tear bar: cuts receipt paper
- Button A: flashing when printer cover is opened
- Paper roll housing: put paper roll here

Paper Roll and Printing

- Paper width: 58 (+0/-1)mm
- Paper length: 50M (max.)
- Paper thickness: 65 um
- Paper roll outside diameter: 63 (+2/-2) mm
- Paper roll inside diameter: 12 (+0.5/-0) mm
- Paper Detection: Photo interrupter
- Printing width: 48 mm
- Printing Method: Direct thermal
- Printing Speed: 25.4 mm/ sec
- Dot resolution (dots/ mm): 8 (203 dpi)
- Thermal head service life: 1 pulses or 50Km

1-5-2 Software Specifications

Networking

- IEEE802.3 10BaseT Ethernet
- IEEE802.3u 100BaseTX Fast Ethernet
- IEEE802.11b Wireless LAN
- IEEE802.11g Wireless LAN
- IEEE802.11n Wireless LAN

- Supports 30 Simultaneous Users
- IP Plug and Play (iPnP)
- HTTP Proxy Support
- WEP64/128bit
- WPA-PSK (TKIP)
- WPA2-PSK(AES)
- WPA/WPA2 Mix mode
- SMTP Server Redirection
- DHCP Server(RFC 2131)
- DHCP Relay(RFC 1542)
- Static IP WAN Client
- DHCP WAN Client
- PPPoE WAN Client(RFC 2516)
- PPTP WAN Client
- NAT(RFC 1631)
- IP Routing
- NTP (Network Time Protocol) Support
- Local Account: 256
- Max Session Number: up to 16384

Marketing Cooperation

- Advertisement URL link
- Walled garden
- Customizable log-on and log-off pages
- Portal Page

User Accounting and Authentication

- Built-in Authentication
- Web-based Authentication
- RADIUS AAA Support (RFC 2865, 2866)
- Secondary RADIUS
- User Authentication and Accounting
- Logout Window Timer Control

Security and Firewall

- Layer 2 Isolation Security
- SSL User Login page/ Configuration Page

- SSL Administration
- VPN Pass through (IPSec/PPTP)
- Customize SSL Certificate
- Pass Through IP/MAC/URL Address
- Restricted Destination Filtering IP/URL
- VPN (IPSec/PPTP) Pass through
- PPTP VPN Client
- WEP
- WPA
- WPA2
- WPA/WPA2 Mix mode

Management

- Web-based Management Tool
- Firmware Upgrade via HTTP/TFTP
- Wizard setup for step-by-step Configuration
- Backup/Restore/Factory Default Setting
- Remote Authorized Management
- Real-time Session List
- Syslog (System/Subscriber/LAN device)
- E-mail logs
- SNMP v1/v2 (MIB II, Private MIB)
- System Information Table
- Status Report (Daily/Monthly/System/Network)
- SSL certificate upload

2 Installation

2-1 Connecting the Antennas

The WG-500P provides two antenna connectors on the rear of the unit.

2-2 Installation Requirements

Before installing the WG-500P, make sure your network meets the following requirements.

System Requirements

The WG-500P requires one of the following types of software:

- Windows 98 Second Edition/NT/2000/XP/Vista
- Red Hat Linux 7.3 or later version
- MAC OS X 10.2.4 or later version
- Any TCP/IP-enabled systems like Mac OS and UNIX (TCP/IP protocol installed)
- Standard phone line for xDSL modem Or Coaxial cable for Cable modem
- Web Browser Software (Microsoft I.E 5.0 or later version or Netscape Navigator 5.0 or later version)
- One computer with an installed 10Mbps, 100Mbps or 10/100Mbps Ethernet card
- UTP network Cable with a RJ-45 connection (Package contents)

Note: Prepare twisted-pair cables with RJ-45 plugs. Use Cat.5 cable for all connections. Make sure each cable not exceed 328 feet (Approximately 100 meters).

ISP Requirements

Verify whether your ISP use fixed or dynamic IP. If it is a fixed IP, be sure to get the IP from your ISP. For dynamic IP, which is mostly used, the PC will get the IP automatically whenever it hooks up on the modem.

Dynamic IP

- Dynamic IP Setting

Fixed IP

- Your fixed IP address for the WG-500P
- Your subnet mask for the WG-500P
- Your default gateway IP address
- Your DNS IP address

PPPoE

- Your user name and password from your ISP

PPTP

- PPTP Server IP Address from your ISP
- PPTP Local IP address from your ISP.
- PPTP Local IP subnet mask from your ISP.
- Your user name from your ISP
- Your password from your ISP
- Your PC Requirements

The Static IP settings for the PC

- Your PC's fixed IP address
- Your PC's subnet mask
- Your PC's default gateway IP address
- Your PC's primary DNS IP address

Note:

1. The gateway's default IP address setting is "10.59.1.1".
2. The gateway's default subnet mask setting is "255.255.255.0".

The Dynamic IP settings for the PC

We recommend that you leave your IP settings as automatically assigned. By default, the WG-500P is a DHCP server, and it will give your PC the necessary IP settings.

2-3 Getting Start

WG-500P Connection

1. Connect the DC power adapter to the WG-500P and plug it into a power socket.
2. Connect WG-500P and xDSL modem with an Ethernet Cable.



Figure 2-3-1 WG-500P Connection

Configure TCP/IP of your computer

For Windows user,

1. Click Start > Control Panel, click Switch to Classic View and double click on Network Connections.
2. Right click on the Local Area Connection and click Properties.
3. Double click Internet Protocol (TCP/IP).
4. Choose Obtain an IP address automatically.
5. Click OK to close the Internet Protocol (TCP/IP) Properties and click OK again to close the Local Area Connection.

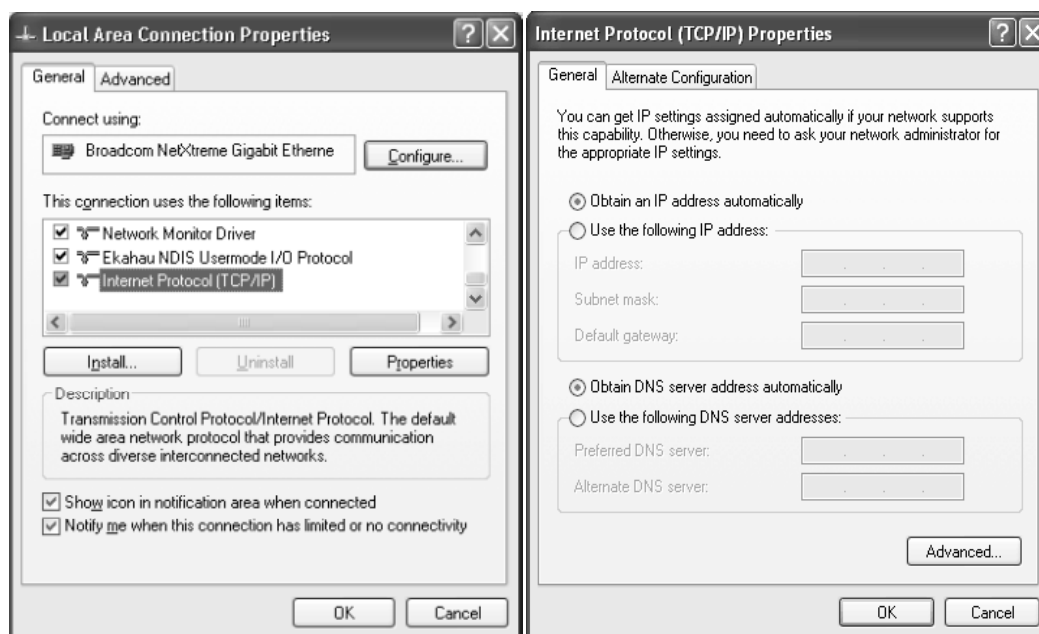


Figure 2-3-2 TCP/IP Setting

3 Configuring the WG-500P

3-1 Setting Wizard

Step 1: The ESSID's name by default is related to the last 4 numbers of WLAN MAC. If the WLAN MAC is "00-90-0E-00-12-34", the default is "Handlink-1234_1". Please search ESSID "Handlink -1234_1" and connect it.

Step 2: Start your browser, and then enter the factory default IP address **10.59.1.1** in your browser's location box. Press **Enter**.

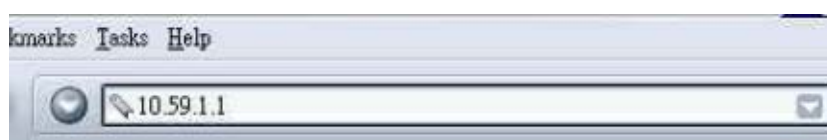
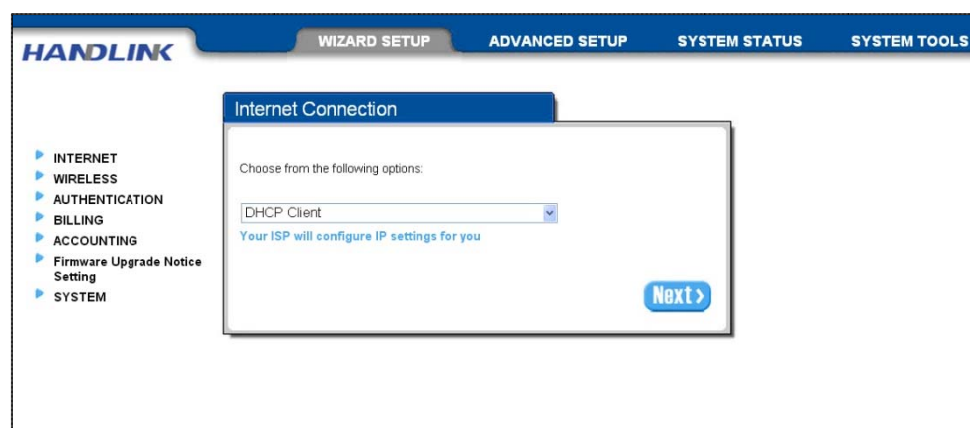


Figure 3-1-1 Web Browser Location Field (Factory Default)

Step 3: The WG-500P configuration tools menu will appear. In the Username and Password field, type the factory default user name **admin** and password **admin** and click **Login**. If you are first time setting the system, the wizard setup screen will appear. You will be guided, step-by-step, through a basic setup procedure.



Figure 3-1-2 Configuration Tools Menu



The screenshot shows the 'HANDLINK' web interface with a navigation bar containing 'WIZARD SETUP', 'ADVANCED SETUP', 'SYSTEM STATUS', and 'SYSTEM TOOLS'. The 'WIZARD SETUP' tab is active, and the 'Internet Connection' sub-tab is selected. On the left, a sidebar lists menu items: INTERNET, WIRELESS, AUTHENTICATION, BILLING, ACCOUNTING, Firmware Upgrade Notice Setting, and SYSTEM. The main content area prompts the user to 'Choose from the following options:' and displays a dropdown menu with 'DHCP Client' selected. Below the dropdown, it states 'Your ISP will configure IP settings for you'. A 'Next >' button is located at the bottom right of the configuration box.

Figure 3-1-3 Wizard Setup Screen

System Quick View

refresh ↺

System

System/Host Name		Firmware Version	1.00.00.b06
Location Name		Domain Name	
System Time	2013/10/30 06:13:12	System Up Time	00D:02H:02M:14S
WAN MAC Address	XXXXXXXXXXXX	WLAN MAC Address	XXXXXXXXXXXX

Network

WAN Status	Established	WAN Type	Static IP
WAN IP Address	10.59.1.1	LAN IP Address	10.59.1.1
WAN Subnet Mask	255.255.255.0	LAN Subnet Mask	255.255.255.0
Default Gateway	192.168.100.254	DNS	168.95.1.1

Wireless

Wireless Service	OK	ESSID 1	Handlink_WG-500P
Wireless Channel	6	ESSID 2	Handlink_WG-500P
		ESSID 3	Handlink_WG-500P
		ESSID 4	Handlink_WG-500P
		ESSID 5	Handlink_WG-500P
		ESSID 6	Handlink_WG-500P
		ESSID 7	Handlink_WG-500P
		ESSID 8	Handlink_WG-500P

Traffic

WAN	TxData: 30803 RxData: 2534910 TxError: 0 RxError: 0
ESSID 1 Traffic	TxData: 2089814 RxData: 1496245 TxError: 0 RxError: 0
ESSID 2 Traffic	TxData: 0 RxData: 0 TxError: 0 RxError: 0
ESSID 3 Traffic	TxData: 0 RxData: 0 TxError: 0 RxError: 0
ESSID 4 Traffic	TxData: 0 RxData: 0 TxError: 0 RxError: 0
ESSID 5 Traffic	TxData: 0 RxData: 0 TxError: 0 RxError: 0
ESSID 6 Traffic	TxData: 0 RxData: 0 TxError: 0 RxError: 0
ESSID 7 Traffic	TxData: 0 RxData: 0 TxError: 0 RxError: 0
ESSID 8 Traffic	TxData: 0 RxData: 0 TxError: 0 RxError: 0

refresh ↺

Figure 3-1-4 System Quick View

Step 4: Internet Connection Setting

Select the appropriate Internet connection type to connect to your ISP.

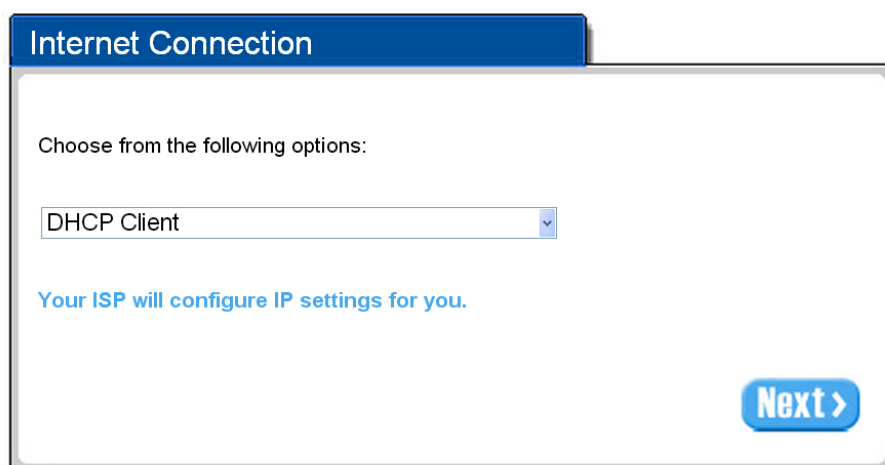
The image shows a web-based configuration screen titled "Internet Connection" in a blue header bar. Below the header, the text "Choose from the following options:" is displayed. A dropdown menu is shown with "DHCP Client" selected. Below the dropdown, the text "Your ISP will configure IP settings for you." is displayed in blue. In the bottom right corner, there is a blue button with the text "Next >".

Figure 3-1-5 Internet Connection Setting Screen

DHCP Client

The device can work as a DHCP client. This allows the device to obtain the IP address and other TCP/IP settings from your ISP. If your xDSL/Cable comes with this feature, please enable Use DHCP Client.

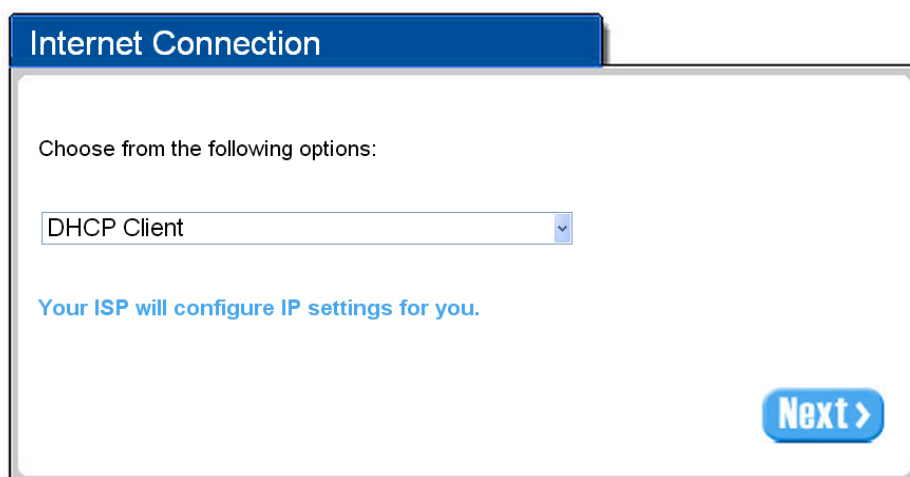
This image is identical to Figure 3-1-5, showing the "Internet Connection" setting screen with "DHCP Client" selected in the dropdown menu.

Figure 3-1-6 Internet Connection Setting Screen

Static IP Setting

If **Static IP Setting** is selected, then this screen will appear. Enter the IP address information provided by your ISP.

Internet Connection

Choose one from the following selections:

Static IP Setting ▼

Enter static IP information from your ISP:

IP Address:	0.0.0.0
Subnet Mask:	0.0.0.0
Gateway IP address:	0.0.0.0
Primary DNS Server:	
Secondary DNS Server:	

Next >

Figure 3-1-7 Internet Connection Setting Screen—Static IP Setting

Item	Default	Description
IP Address	0.0.0.0	Enter the IP address provided by your ISP.
Subnet Mask	0.0.0.0	Enter the subnet mask for the IP address.
Gateway IP Address	0.0.0.0	Enter the Gateway IP Address provided by your ISP.
Primary DNS Server	Empty	Enter the primary DNS server IP address for the xDSL/Cable connection (provided by your ISP).
Secondary DNS Server	Empty	Enter the secondary DNS server IP address for the xDSL/Cable connection (provided by your ISP). If the primary DNS Server IP were not available, meanwhile, Secondary DNS Server IP would start in the same time.

PPPoE (Point-to-Point Protocol over Ethernet)

If “PPPoE” is selected, then this screen will appear. Enter the username, password and other major fields.

Figure 3-1-8 Internet Connection Setting Screen—PPPoE Setting

Item	Default	Description
Username	Empty	Enter the user name provided by your ISP. The user name can consist of up to 80 alphanumeric characters and is case sensitive.
Password	Empty	Enter the user password provided by your ISP. The password can consist of up to 80 alphanumeric characters and is case sensitive.
PPP MTU Setting	1492	MTU (Maximum Transfer Unit) specifies maximum transmission unit size.
TCP MSS Setting	1452	MSS (Maximum Segment Size) specifies maximum segment size.
Service Name	Empty	Enter the service name provided by your ISP. The service name can consist of up to 64 alphanumeric characters and is case sensitive.
Connect on Demand and Max Idle Time		
Connect on Demand	Enable	You can configure your WG-500P to cut your connection with your ISP after a specified period of time (Max Idle Time). If you have been disconnected due to inactivity, Connect on Demand enables your WG-500P to automatically re-establish your connection as soon as you attempt to access the Internet again. If you wish to activate Connect on Demand, click the radio button. If you want your Internet connection to remain, click the radio button of keep
Max Idle Time	10 Minutes	

		alive. The Max Idle Time maximum value is 65535 minutes.
Keep alive and Redial Period		
Keep alive	Disable	This option keeps your PPPoE enabled Internet access connected indefinitely, even when it sits idle. The Redial Period maximum value is 65535 seconds.
Redial Period	30 Seconds	

PPTP Client (Point-to-Point Tunneling Protocol)

If PPTP Setting is selected, then this screen will appear. Please enter the IP address, Username and Password provided by your ISP.

Figure 3-1-9 Internet Connection Setting Screen—PPPoE Setting

Item	Default	Description
Username	Empty	Enter the user name provided by your ISP. The user name can consist of up to 80 alphanumeric characters and is case sensitive.
Password	Empty	Enter the user password provided by your ISP. The password can consist of up to 80 alphanumeric characters and is case sensitive.
PPP MTU Setting	1492	MTU (Maximum Transfer Unit) specifies maximum transmission unit size.

WG-500P & WG-500P M Hotspot in a Printer

TCP MSS Setting	1452	MSS (Maximum Segment Size) specifies maximum segment size.
Service Name	Empty	Enter the service name provided by your ISP. The service name can consist of up to 64 alphanumeric characters and is case sensitive.
Connect on Demand and Max Idle Time		
Connect on Demand	Enable	You can configure your WG-500P to cut your connection with your ISP after a specified period of time (Max Idle Time). If you have been disconnected due to inactivity, Connect on Demand enables your WG-500P to automatically re-establish your connection as soon as you attempt to access the Internet again. If you wish to activate Connect on Demand, click the radio button. If you want your Internet connection to remain, click the radio button of keep alive. The Max Idle Time maximum value is 65535 minutes.
Max Idle Time	10 Minutes	
Keep alive and Redial Period		
Keep alive	Disable	This option keeps your PPPoE enabled Internet access connected indefinitely, even when it sits idle. The Redial Period maximum value is 65535 seconds.
Redial Period	30 Seconds	

Step 5: Wireless Setting

This page allows you to choose Country, Channel ID and 802.11 Mode for wireless connection.

Wireless Settings

Country :

ETSI

Channel :

6

(Leave default if you don't know how to choose)

802.11 Mode:

802.11n + 802.11g + 802.11b

< Back

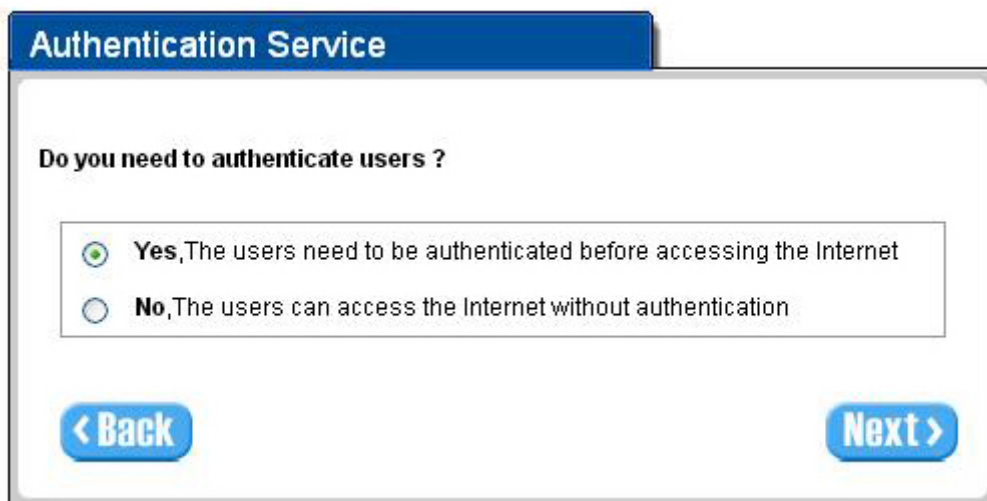
Next >

Figure 3-1-10 Wireless Setting Screen

Item	Default	Description
Country	ETSI	Enter the Country for wireless connection.
Channel	6	Enter the channel ID for wireless connection.
802.11 Mode	802. 11n + 802.11g + 802.11b	Enter the 802.11 Mode for wireless connection.

Step 6: Authentication Setting

This page allows you to choose whether the users need to be authenticated before the Internet access. If users need the account and password to get access of Wi-Fi, please choose **Yes**.



The image shows a web-based configuration screen titled "Authentication Service". It contains a question "Do you need to authenticate users ?" with two radio button options. The first option, "Yes, The users need to be authenticated before accessing the Internet", is selected. The second option is "No, The users can access the Internet without authentication". At the bottom of the screen, there are two blue buttons: "< Back" on the left and "Next >" on the right.

Authentication Service

Do you need to authenticate users ?

☒ **Yes**, The users need to be authenticated before accessing the Internet

☐ **No**, The users can access the Internet without authentication

< Back **Next >**

Figure 3-1-11 Authentication Service Setting Screen

Step 7: Billing Profile Setting

This page allows you to set your service and price plan. If you would like to provide **“FREE”** Wi-Fi for users, please activate **“No Billing Mode”** , and the price and the tax won't be showed on the ticket. You can set 3 billing profiles.

Billing Profile

What is your service and price plan ?

☒ **Time to Finish**
The subscriber can access Internet only one time with one account. Once the subscriber login, the pre-defined usage time will start until run out even the subscriber stop to access the Internet before run out.

☐ **Accumulation**
The subscriber can access Internet several times with one account. The system can keep and accumulate every single usage time until the pre-defined usage time run out.

Service and Price Plan ☐ No Billing Mode

Currency: ☒ USD ☐ €

(Number of decimals places:)

No.	Name (max. 12 char.)	Usage time	Charge
01	30 minutes	30 minutes	1.00
02	1 hour	1 hours	2.00
03	2 hours	2 hours	3.00

< Back Next >

Figure 3-1-12 Billing Profile Setting

Item	Default	Description
Service and Price Plan	Time to Finish	Choose your service and price plan.
No Billing Mode	Disabled	If you would like to provide FREE Wi-Fi for users, please activate “No Billing Mode” , and the price and the tax won't be showed on the ticket.
Currency	USD	The administrator can decide the currency printed out on the ticket.

Step 8: Accounting Setting

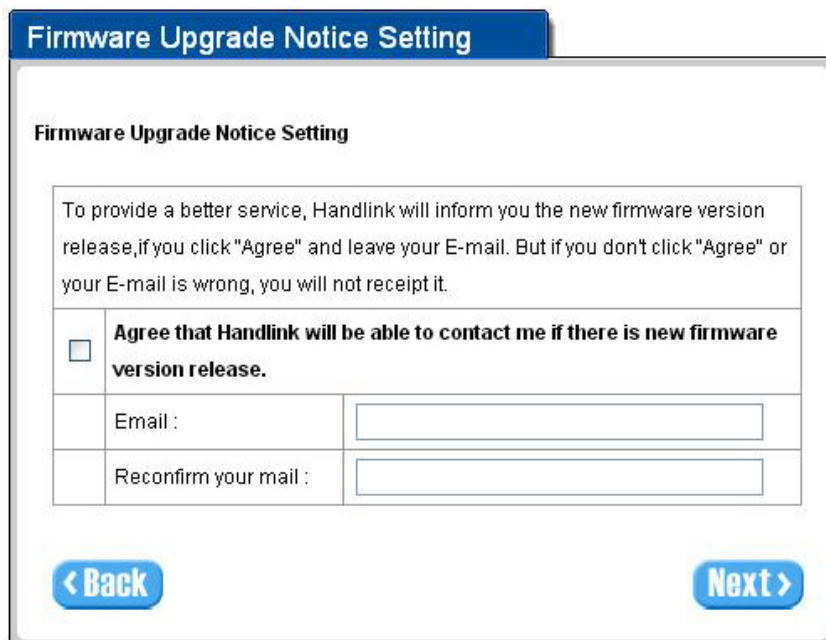
Following the Billing Profile Setting, the page allows to set the billing profiles for each button of the printer.

Figure 3-1-13 Accounting Setting

Item	Default	Description
Printout		
Numbers of copies to print	1	The numbers of the same printed tickets. You can reserve the copies.
Customize printout ticket		You can customize the printout text for the ticket. If you want to know more, please refer to 3-2-5-4 Customization / Account Printout.

Step 9: Firmware Upgrade Notice Setting

If you would like to receive the information about firmware upgrade, please activate it and leave your email.



The screenshot shows a web page titled "Firmware Upgrade Notice Setting". The page has a blue header bar with the title. Below the header, the title is repeated. A text box explains that Handlink will inform about new firmware releases if the user agrees and provides a valid email. There is a checkbox for agreement, followed by two input fields for email and a reconfirmation of the email. At the bottom, there are two blue buttons: "< Back" and "Next >".

Firmware Upgrade Notice Setting	
To provide a better service, Handlink will inform you the new firmware version release, if you click "Agree" and leave your E-mail. But if you don't click "Agree" or your E-mail is wrong, you will not receipt it.	
☐	Agree that Handlink will be able to contact me if there is new firmware version release.
Email :	
Reconfirm your mail :	
< BackNext >	

Figure 3-1-14 Firmware Upgrade Notice Setting

Step 10: System Setting

System Setting: The WG-500P allows to change the administrator's Username and Password, and system time setting.

Figure 3-1-15 System Setting Screen

Item	Default	Description
Username	admin	Enter the user name. The user name can consist of up to 80 alphanumeric characters and is case sensitive.
Password	admin	Enter the user password. The password can consist of up to 80 alphanumeric characters and is case sensitive.
Time Zone	GMT	Enter the Time Zone for the system.
Manual Setting	YYYY/MM/DD	Click Manual Setting to set the system date and time.

	HH:MM:SS	
NTP Setting		Click Update button to correct the system date and time.
Secure Administrator IP Address	All	This function allows remote user to management the device. You can specify one or any IP addresses for remote control the system.

Click **FINISH** button to save the settings then the system will restart.

Note:

1. This Web agent is best viewed with IE 5.0 or Netscape 6.0 and above browsers.
2. Username and Password can consist of up to 20 alphanumeric characters and are case sensitive.
3. If for some reason your password is lost or you cannot gain access to the WG-500P Configuration Program, please press the reset button to load the device to manufacturer defaults.
4. If the administrator doesn't send packet in 5 minutes (default), the WG-500P will logout automatically.
5. Proxy needs to set disable first when the administrator accesses admin UI.

3-2 Advanced Setup

The Advanced Setting enables you to configure advanced settings related to accessing the Internet, including,

AUTHENTICATION

- AUTHENTICATION
- RADIUS

BILLING

- BILLING
- ACCOUNTING
- CREDIT CARD

MANAGEMENT

- SYSLOG
- SESSION TRACE
- BANDWIDTH
- SNMP

SECURITY

- PASS THROUGH
- FILTERING
- SECURE REMOTE

SYSTEM

- SYSTEM
- WAN / LAN
- SERVER
- CUSTOMIZATION
- PORTAL PAGE
- ADVERTISEMENT
- WALLED GARDEN
- DDNS
- WIRELESS
- USB

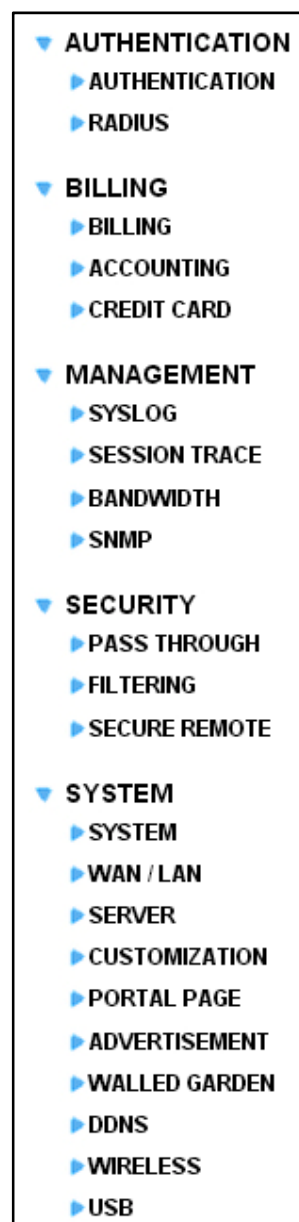


Figure 3-2-1 Advanced Setting Item

Note: After change the settings of device, please click **Apply** button to save the new settings.

3-2-1 AUTHENTICATION

3-2-1-1 Authentication

AUTHENTICATION

Authentication Type	☐ No Authentication ☒ Built-in Authentication Personal ID Recognition Mode : ☐ Enable ☒ Disable ☐ User Agreement ☐ Redirect URL Link http:// Code ☒ Standard User Agreement Page * Authentication default setting would be mapping To ESSID 1.
Current User Information Backup	1 Min(s) (1 - 1440)
SSL Login Page	☒ Disable ☐ Enable
User Idle Time Out	5 Min(s) (1 - 1440) (Not function on "Time to Finish" billing mode)
Apply	

Figure 3-2-2 Authentication

Item	Default	Description
Authentication Type	Built-in Authentication	Option: No Authentication, Built-in Authentication or User Agreement. No Authentication Subscriber can direct access the Internet without enter username and password. Built-in Authentication WG-500P provides "Built-in Authentication" for service provider to build up an Internet service without any extra authentication software. If "Built-in Authentication" is selected, service provider can generate the subscriber account inside the device, and the system will authenticate the subscriber login according to the generated account. Personal ID Recognition mode Some countries or areas will ask Wi-Fi users to offer personal ID recognition according to the law for the

		Internet crime investigation. If you would like to activate PIR function, please refer to Chapter 5 Personal ID Recognition . The default is Disable. User Agreement Subscriber must accept the service usage agreement before they can access the Internet.
Redirect Login Page URL	Empty	The input format can be http://www.yahoo.com. The maximum character of the URL Link is 200.
Code	Copy and paste the following HTML Code into your home page to produce redirect subscriber login page.	

Copy and paste the following HTML Code into your home page to produce user agreement login page.

Redirect Login Page Code

```

<html>
<body style="font-family: Arial" bgcolor="#FFFFFF">
<form method="post" action="http://1.1.1.1/login.cgi" name="apply">
<div align="center">
<table cellSpacing="0" borderColorDark="#FFFFFF" cellPadding="4" width="50%" bgColor="#F7F7F7"
borderColorLight="#9doda0" border="1">
<tr>
<td align="center" width="100%" bgColor="#d7f0d7" colSpan="2">
<font size="2"><b>Welcome</b></font>
</td>
</tr>

```

Figure 3-2-3 Preview Redirect Login Page Code

Item	Default	Description
Current User Information Backup	1 Min(s)	The system provides automatically backup account information and unused account to flash ROM. This function allow administrator to adjust the backup time. The default value is 1 minute. The Current User Information Backup valid range is 1 to 1440.
SSL Login Page	Disable	Enables or disables SSL security of login page.
User Idle Time Out	5 Minutes	The user idle time out valid range is 1-1440.

Click **Apply** button to save the new settings.

3-2-1-2RADIUS

RADIUS

☒ **Disable**
☐ **Enable**

☒ **Time to Finish**
 The subscriber can access the Internet only for a single session. After the subscriber logs in, Internet access is available until the session ends or time runs out, whichever comes first.

☐ **Accumulation**
 The subscriber can access the Internet multiple times with one account. The system accumulates the time of each session until the purchased time limit is reached.

Primary RADIUS Server
 Server IP:
 Authentication Port:
 Accounting Port:
 Shared Secret Key:

Secondary RADIUS Server
 Server IP:
 Authentication Port:
 Accounting Port:
 Shared Secret Key:

Retry times when Primary fails:
 Retry Frequency: seconds (3~75)

Accounting Service
☐ **Enable**
☒ **Disable**
 Interim Update Time: (Minute)

Authentication Method

WISPr Smart Client
☐ **Enable**

Login Mode
☒ Directly Reply
☐ Proxy Reply with "Redirect Login Page" URL
☐ Proxy Reply with Specific URL:

[Apply](#)

Figure 3-2-4 Authentication Setting Screen

Item	Default	Description
RADIUS Authentication	Disable	Disable (RADIUS Disable) Subscriber can direct access the Internet without entering username and password. Enable (RADIUS Authentication) WG-500P provides "RADIUS Authentication" for service provider to build up an Internet service with RADIUS server. If RADIUS Authentication is enabled, all subscribers' authentication will send to RADIUS Server by RADIUS protocol (RFC 2865, 2866).
Time to Finish/ Accumulation	Enable	Service provider provides two different accounting calculate for the Internet service.
Primary RADIUS Server		
Server IP	Empty	Enter the IP address of RADIUS server.
Authentication Port	1812	Enter the authentication port number; the authentication port number must match with the RADIUS server setting. The allowed numbers are from 0 to 65535.
Accounting Port	1813	Enter the accounting port number; the accounting port number must

WG-500P & WG-500P M Hotspot in a Printer

		match with the RADIUS server setting. The allowed numbers are from 0 to 65535.
Share Secret Key	Empty	The share secret key, the key number also has to match with the Server setting. Up to 64 characters are allowed.
Secondary RADIUS Server		
Server IP	Empty	Enter the IP address of RADIUS server.
Authentication Port	1812	Enter the authentication port number; the authentication port number must match with the secondary RADIUS server setting. The allowed numbers are from 0 to 65535.
Accounting Port	1813	Enter the accounting port number; the accounting port number must match with the secondary RADIUS server setting. The allowed numbers are from 0 to 65535.
Share Secret Key	Empty	The share secret key, the key number also has to match with the secondary RADIUS Server setting. Up to 64 characters are allowed.
Retry times when Primary fail	1	Specify the retry times when primary fail.
Retry Frequency ~ Seconds	3	The field default value is 3 seconds.
Accounting Service	Disable	Enables or disables the accounting service.
Interim Update Time	5 Minutes	Specify the interim update time.
Authentication Method	CHAP	CHAP Enter the authentication method of RADIUS server.
WISPr Smart Client		
Enable	Disable	Enables or disables WISPr Smart Client roaming function.
Login Mode	Directly Reply	Options: Directly Reply, Proxy Reply with "Redirect Login Page" URL and Proxy Reply with Specific URL. The login mode information for the IPASS GIS connection. (Provided by your ISP).

3-2-2 BILLING

3-2-2-1 Billing

The function is used to setup a billing profile. A billing profile is a description of how you want to charge *your customer*.

BILLING

*** Pre-Paid**
The subscribers can access Internet with pre-defined usage time.
☐ Enable Credit Card Service WG-500P

*** Time to Finish**
The subscriber can access Internet only one time with one account. Once subscriber login, the pre-defined usage time will start until run out even the subscriber stop to access the Internet before run out.

*** Accumulation**
The subscriber can access Internet several times with one account. The system can keep and accumulate every single usage time until the pre-defined usage time run out.

Billing Profile

Currency: ☐ \$ ☐ ¥ Number of decimals places:)

☐ Tax Percentage: %

No.	Active	Name (max. 12 characters)	Account Usage Time	Charge
01	☒	30 minutes	30 minutes	1.00
02	☒	1 hour	1 hours	2.00
03	☒	2 hours	2 hours	3.00
04	☐	3 hours	3 hours	4.00
05	☐	5 hours	5 hours	5.00
06	☐	10 hours	10 hours	6.00
07	☐	1 day	1 days	10.00
08	☐	2 days	2 days	20.00
09	☐	7 days	7 days	50.00
10	☐	30 days	30 days	200.00

Figure 3-2-5 Billing Setting Screen

Item	Default	Description
Enable Credit Card Service	Disable	Enables or disables the credit card service. Before you enable credit card service, make sure that your credit service is configured to work and the currency is American dollars. You must be converting all prices on your billing page into American dollars (U.S. dollars). For details, see section 3-2-2-3 Credit Card. The credit card function only supports the American dollars.
Time to Finish	Enable	The subscriber can access Internet only one time with one account. Once subscriber login, the pre-defined usage time will start until run out even the subscriber stop to access the Internet before run out.
Accumulation		
Accumulation	Disable	The subscriber can access Internet many times with one account. The

WG-500P & WG-500P M Hotspot in a Printer

		system can keep and accumulate every single usage time until the pre-defined usage time run out.
Idle Time Out	5 Min(s)	The idle time out valid range is 1-1440. If the idle time out is set as 5 minutes, it means if the account doesn't send packet in 5 minutes, the account will logout automatically.
Billing Profile		
Currency	\$	Enter the appropriate currency unit or currency symbol.
Number of decimals places	2	Enter the number. The field maximum value is 3.
Tax Percentage	Disable	This check box is used to indicate the taxable status of the account.
	5%	Enter the tax rate (i.e. a 5% sales tax is entered as 5).
Active	-	Click on check box, active or inactive the billing profile.
Name	-	It is the name of billing profile. The maximum allowed characters length is 12.
Account Usage time	-	The duration of the billing period. When this period expires, user account will be discontinued.
Charge	-	Enter the unit rate amount (i.e. 35.00) that most of your accounts are charged for one day of service.

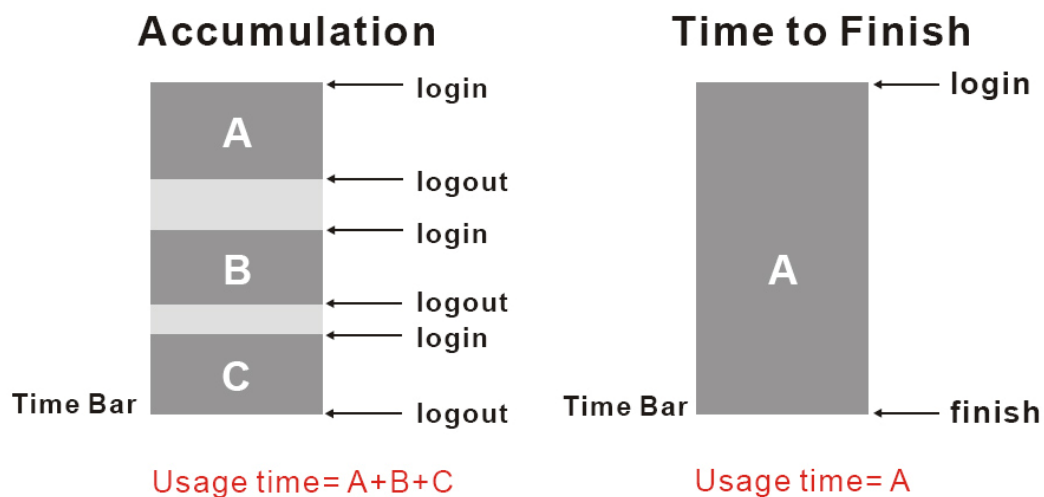


Figure 3-2-6 Accumulation and Time to Finish

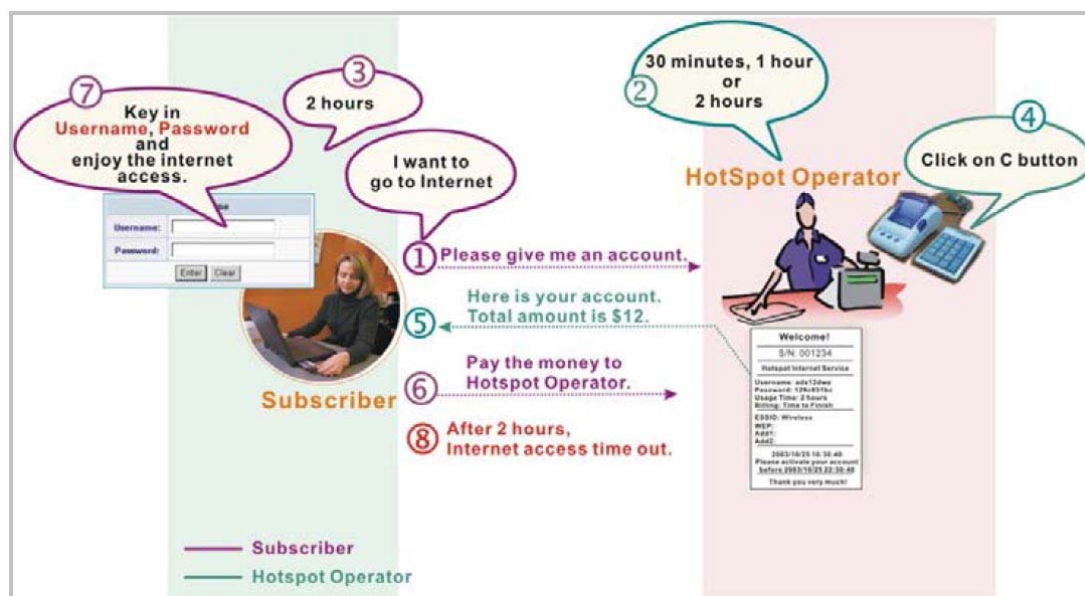


Figure 3-2-7 Pre-paid Procedure Diagram

3-2-2-2 Accounting

This function allow service provider to generate the subscriber accounts.

ACCOUNTING

Expiration	Un-used account will be deleted after 24 hours v automatically. (1~30)
	Accumulation account will be deleted after last logged out 3 months v automatically. (1~30)
Printout	Number of copies to print: 1 v
Top Up	☐ Can be replenished by subscriber

Three-Button Printer / Web-based Account Generator Panel

Button A	(01) 30 minutes, 30 minutes, USD1.00 v
Button B	(02) 1 hour, 1 hours, USD2.00 v
Button C	(03) 2 hours, 2 hours, USD3.00 v
Use	v Button A v for Discount Price Plan based on "Button Presses": v Disable v (only valid for Three-Button Printer)

Discount Price Plan based on "Button Presses" ☒ Charge by levels

Level	Conditions	Button Presses	Unit Price
01	when >=	1	same as base charge
02	when >=		
03	when >=		
04	when >=		
05	when >=		
06	when >=		
07	when >=		
08	when >=		
09	when >=		
10	when >=		

Figure 3-2-8 Accounting Setting Screen

Item	Default	Description
Expiration		
Un-used account will be deleted after ~hours automatically	24 hours	Enter the number of hours/minutes/days. The field maximum value is 30 hours/minutes/days.
Accumulation account will be deleted after last logged in ~	3 months	Enter the number and select time unit from list box. The field maximum value is 30 month/ days/ hours.
Printout		
Number of copies to print	1	The system allows you to print all your bills. Select one number of copies by clicking in the list box.
Can be Top Up by subscriber		Click the check box to enable the Top Up function.

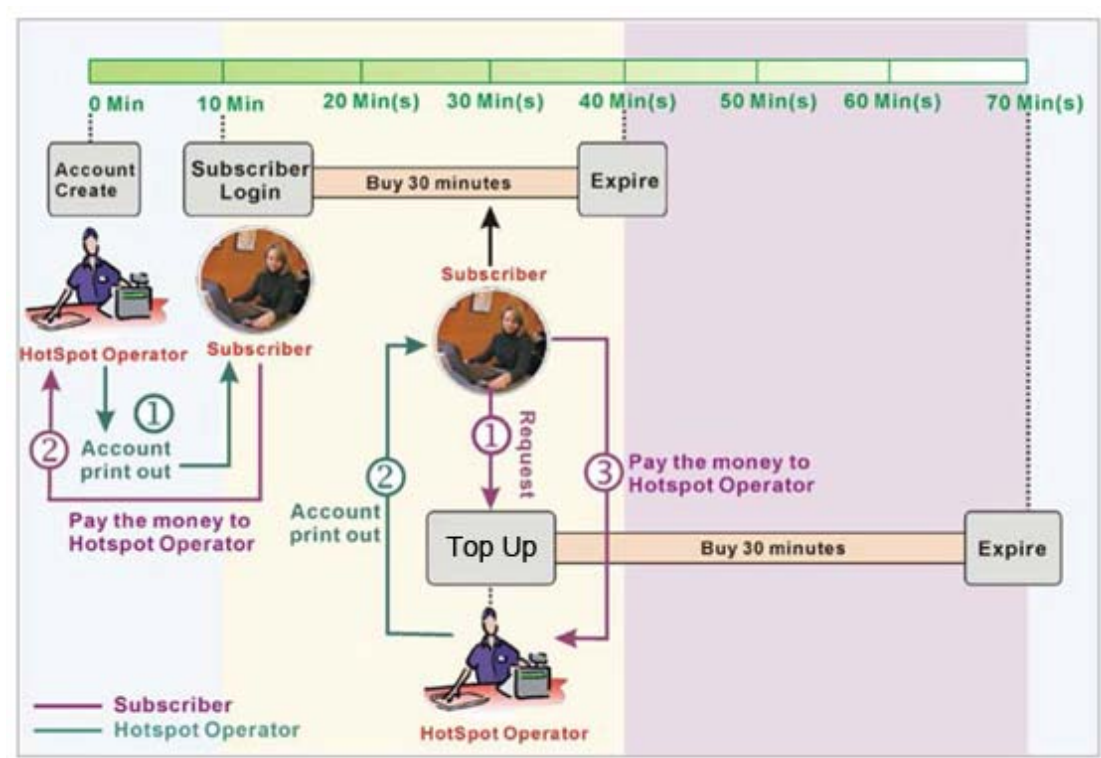


Figure 3-2-9 Account Process Diagram Can be topped up by subscriber=Enable

Item	Default	Description
Button A~C		Define each button's billing profile. Select one billing profile by clicking in the list box.
Use ~ for Discount Price Plan based on "Button Presses"	Button A, Disable	Select one button (A~C) by clicking in the list box to assign the base charge and select enable to active the discount price plan.



Figure 3-2-10 Account Generator Printer (Time to Finish)



Figure 3-2-11 Account Generator Printer (Accumulation)

Example: If press 7 times

- Discount Price Plan based on "Button Presses" is disabled.

Three-Button Printer / Web-based Account Generator Panel	
Button A	(01) 30 minutes, 30 minutes, USD1.00 ▼
Button B	(02) 1 hour, 1 hours, USD2.00 ▼
Button C	(03) 2 hours, 2 hours, USD3.00 ▼
Use Button A ▼ for Discount Price Plan based on "Button Presses": Disable ▼ (only valid for Three-Button Printer)	

Figure 3-2-12 Example 1

Amount: 7 x \$2.00= \$14.00

```

Welcome!
-----
WG-500P
-----
Username: rwch
Password: vuph
Billing: Accumulation
Service: 1 hour
Unit: 7
Usage Time: 07H:00M
Subtotal: USD 14.00
Tax: USD 0.00
Total: USD 14.00
ESSID: Handlink_WG-500P
WEP: 1234567890
-----
2013/10/30 05:16:39
S/N: 000006
Activate account before:
2013/10/31 05:16:39
Please finish your usage
time within 3 months af
ter your last logged out
-----
Thank you !



```

Figure 3-2-13 Account Printout

- Discount Price Plan based on “Button Presses” is enabled.
- The Charge by level is disabled.

Three-Button Printer / Web-based Account Generator Panel			
Button A	(01) 30 minutes, 30 minutes, USD1.00		
Button B	(02) 1 hour, 1 hours, USD2.00		
Button C	(03) 2 hours, 2 hours, USD3.00		
Use	Button B	for Discount Price Plan based on “Button Presses”:	Enable (only valid for Three-Button Printer)

Discount Price Plan based on “Button Presses”			
☐ Charge by levels			
Level	Conditions	Button Presses	Unit Price
01	when >=	1	same as base charge
02	when >=	3	1.5
03	when >=	7	1
04	when >=		
05	when >=		
06	when >=		
07	when >=		

Figure 3-2-14 Example 2

Amount: 7 x \$ 1 = \$ 7.00

Below is an example of the account printout.

```

Welcome!
-----
WG-500P
-----
Username: 5t0q
Password: d49x
Billing: Accumulation
Service: 1 hour
Unit: 7
Usage Time: 07H:00M
Subtotal: USD 7.00
Tax: USD 0.00
Total: USD 7.00
ESSID: Handlink_WG-500P
WEP: 1234567890
-----
2013/10/30 05:39:16
S/N: 000009
Activate account before:
2013/10/31 05:39:16
Please finish your usage
time within 3 months af
ter your last logged out
-----
Thank you !



```

Figure 3-2-15 Account Printout

- Discount Price Plan based on “Button Presses” is enabled.
- Charge by level is enabled.

Three-Button Printer / Web-based Account Generator Panel			
Button A	(01) 30 minutes, 30 minutes, USD1.00		
Button B	(02) 1 hour, 1 hours, USD2.00		
Button C	(03) 2 hours, 2 hours, USD3.00		
Use	Button B	for Discount Price Plan based on “Button Presses”:	Enable (only valid for Three-Button Printer)

Discount Price Plan based on “Button Presses” ☒ Charge by levels			
Level	Conditions	Button Presses	Unit Price
01	when > =	1	same as base charge
02	when > =	3	1.5
03	when > =	7	1
04	when > =	0	
05	when > =	0	
06	when > =	0	
07	when > =	0	

Figure 3-2-16 Example 3

Amount: 2 x \$2.00 + 4 x \$ 1.50+1x\$1= \$11.00

Below is an example of the account printout.

Figure 3-2-17 Account Printout

- Discount Price Plan based on “Button Presses”

Discount Price Plan based on "Button Presses"  Charge by levels			
Level	Conditions	Button Presses	Unit Price
01	when > =	1	same as base charge
02	when > =	0	
03	when > =	0	
04	when > =	0	
05	when > =	0	
06	when > =	0	
07	when > =	0	
08	when > =	0	
09	when > =	0	
10	when > =	0	

Figure 3-2-18 Discount Price Plan Setting Screen

Item	Default	Description
Charge by levels	Enable	Enables or disables the charge by levels function.
Level	1-10	This field displays the level number of charge rate.
Conditions	When>=	The discount condition
Button Presses	-	Enter the times of pressing button
Unit Price	-	Enter the amount of charge level

Click **Apply** button to save the new settings and the success dialog box appears. Click on **Back** to return to Accounting setting screen.

3-2-2-3 Credit Card

WG-500P provides three credit card services (**Authorize.net**, **iValidate.net**, **Secure Pay**, **Paypal** and **WorldPay**) that allow service provider to authorize, process, and manage credit transactions directly from Internet.

CREDIT CARD

Authorize.net	
Version	3.1
Merchant ID	
Merchant Password	☐ New Password:
Merchant Transaction Key	
Payment Gateway	https:// secure.authorize.net/gateway/transact.dll
☐ Email Additional Information	☐ Username and Password ☐ Usage Time Merchant Name: (max. 40 characters)

iValidate.net	
Merchant ID	
Terminal ID	
Secure Server Address	https:// https://www.securepay.com.au/xmlapi/payment

PayPal	
Business	(max. 127 characters)
Currency Code	Australia Dollar v
Identity Token	(max. 160 characters)
Payment Gateway	https:// www.paypal.com/cgi-bin/webscr (max. 100 characters)

World Pay	
Payment Gateway	https:// select.worldpay.com/wcc/purchase
Installation ID	
Currency Code	(max. 3 characters)
Description	(max. 100 characters)
☐ Test Mode	success v

Credit Card icons to be displayed on the login page

☐ 
☐ 
☐ 
☐ 
☐ 
☐ 

☐ BankCard

Figure 3-2-19 Credit Card Setting Screen

Item	Default	Description
Authorize.net		
Version	3.1	This field displays the merchant version.
Merchant ID	Empty	Enter your Merchant ID. This is a Merchant Identification Number that you're received from your Merchant Provider. The maximum character of the Merchant ID is 50.
Merchant Password	This is a Merchant password that you're received from your Merchant Provider.	
Need	Disable	If your Merchant Provider need password to authorize, click the check box to enable this function.
Password	Empty	Enter your Merchant password.
Merchant Transaction Key	Empty	The Merchant Transaction Key can be obtained directly from "Authorize.net". The Merchant Transaction Key is similar to a password and is used by the Payment Gateway to authenticate transactions. The maximum character of the Merchant Transaction Key is 50.
Payment Gateway	https://secure.authorize.net/gateway/transaction.dll	Enter the address of Payment Gateway.
Email Additional Information	The Email Additional Information included subscriber username and password would be sent to subscriber.	
Email Additional Information	Disable	Indicates whether Email additional information should be sent to the subscriber (customer).
Merchant Name	Empty	Enter the merchant's company name. The maximum allowed characters length is 40.
Username and Password Enable/Disable	Disable	The Email Additional Information included subscriber username and password would be sent to subscriber.
Usage Time Enable/Disable	Disable	The Email Additional Information included subscriber usage time would be sent to the subscriber.
iValidate.net		
Merchant ID	Empty	Enter your Merchant ID. This is a Merchant Identification Number that you're received from your Merchant Provider. The maximum character of the Merchant ID is 20.
Device ID	Empty	Enter your Device ID. This is a Device Identification Number that you're received from your Merchant Provider. The maximum character of the Device ID is 20.
Secure Server Address	https://www.vious.net/	Enter the secure server address.

Item	Default	Description
	merchant/processcc.a sp	
Secure Pay		
Merchant ID	Empty	Enter your Merchant ID. This is a Merchant Identification Number that you're received from your Merchant Provider. The maximum character of the Merchant ID is 7.
Secure Pay Address	https://www.securepay.com.au/securepay/payments/process2.asp	Enter the address of SecurePay Payment Gateway.
Paypal		
Business	Empty	Enter your Merchant PayPal account. This is a Merchant Identification account that you're register on PayPal. The maximum character of the Business is 127.
Currency Code	Australia dollar	To Drop-down the list. It's includes Australia dollar, Canadian Dollar, Euro, Pound Sterling, Japanese Yen , U.S. Dollars, Czech Koruna, Danish Kroner, Hong Kong Dollars, Hungarian Forint, New Zealand Dollars, Norwegian Kroner, Polish Zloty, Singapore Dollars, Swedish Kronor, Swiss Francs.
Identity Token	Empty	Enter the Identities token form merchants profile in the Paypal site. The maximum character of the Identity Token is 160.
Payment Gateway	https://www.paypal/cgi-bin/webscr	Enter the address of Payment Gateway. The maximum character of the payment gateway is 100.
World Pay		
Payment Gateway	select.worldpay.com/wcc/purchase	Enter the payment gateway address.
Installation ID	Empty	The unique reference number, assigned by WorldPay, for a particular Select installation. This is the number you send to WorldPay in your payment form. You will probably have at least two of these; one for the live installation and one for testing.
Currency Code	Empty	Enter the currency code
Description	Empty	Enter a description of payment page
Test Mode	Disable, Success	Enables or disables test mode function. Select test mode by clicking in the list box. Success—to make a successful test transaction. Fail—for a failed transaction.

Item	Default	Description
Credit Card icons to be displayed on the login page		Click on check box to display credit card icon on the login page.

Click Apply button to save the new settings and the success dialog box appears. Click on **Back** to return to Accounting setting screen.

Note: Please leave the Administrator' s Email address in Advanced/Syslog/Email portion.

3-2-3 MANAGEMENT

3-2-3-1 Syslog

The function allows the device to transmit event messages to your syslog server or your email address for monitoring and troubleshooting.

Syslog Setting

Figure 3-2-20 Syslog Setting Screen

Item	Default	Description
Send to Syslog Server	Disable	Enables or disables the syslog server function.
Syslog on LAN		
Server IP Address	Empty	Enter syslog server's IP address. The WG-500P will send all of its logs to the specified syslog server.
Server MAC Address	Empty	Enter the syslog server's MAC address. The WG-500P will send all of its logs to the specified syslog server.

Item	Default	Description
Syslog on WAN		
Server 1 IP Address	Empty	Enter IP address of first syslog server.
Server 2 IP Address	Empty	Enter IP address of second syslog server.
Send to Email	Disable	Enables or disables the send to e-mail function.
E-mail Server		
IP Address or Domain Name	Empty	Enter the SMTP server IP address or domain name. The maximum allowed characters length is 50.
SMTP Port	25	The SMTP port allowed range is 25 or 2500 to 2599.
E-mail (SMTP) Server needs to check my account	Disable	If your SMTP server requires authentication before accepting e-mail, click on check box. These values (username and password) are supplied by your network administrator, SMTP server provider or ISP.
Username	Empty	Enter the username for the SMTP server. The maximum allowed characters length is 64.
Password	Empty	Enter the password for the SMTP server
Email From		
Name	Empty	Enter the name you would like to appear in the "message from" field of your outgoing message. The maximum allowed characters length is 20.
Email Address	Empty	Enter your e-mail address. This is the address others will use to send email to Email Address 1/Email Address 2.
Email To		
Email Address 1	Empty	Enter your first e-mail address to receive the logs.
Email Address 2	Empty	Enter your second e-mail address to receive the logs.

Click **Apply** button to save the new settings and the success dialog box appears. Click on **Back** to return to Syslog setting screen.

Log Categories

SYSLOG

Syslog
Log Settings

System

Syslog	Email	Log Name	Description	Sending Timing
☒	☒	Device Information	A log including the device information will be sent according to specified interval time	Every 10 minute(s) (5~60)
☒	☒	System Up Notice	A log will be sent, once system rebooted or restarted	When system rebooted or restarted
☒	☒	System Account Activity Information	A log will be sent if system manager (Administrator) login to or logout from the device	When system manager login or logout
☒	☒	Firmware Update Notice	A log will be sent if firmware update completed	When firmware update completed
☒	☒	Wireless Association Information	A log including wireless users information will be sent according to specified interval time	Every 10 minute(s) (5~60)

User

Syslog	Email	Log Name	Description	Sending Timing
☒	☒	User Login	A log including users information will be sent when user logged-in	When user logged-in
☒	☒	User Logout	A log including users information will be sent when user logged-out	When user logged-out
☒	☒	Current User List	A log including logged-in users information will be sent according to specified interval time	Every 10 minute(s) (5~60)

Account and Billing

Syslog	Email	Log Name	Description	Sending Timing
☒	☒	Account Information	A log will be sent when an account is created	When an account is created
☒	☒	Billing Amount	A log will be sent when received amount	When received amount

Apply

Figure 3-2-21 Log Settings Screen

Item	Default	Description
System		
Device Information	Every 10 minute(s)	The range is 5~60 minutes. The log included system information would be sent according to specified interval time. Format : PRODUCT=WG-500P;VER=2.00.00;LOGNAME=DVI; DATE=07Mar26;TIME=11:30:00;

WG-500P & WG-500P M Hotspot in a Printer

Item	Default	Description
		WANMAC=09-00-0e-00-00-01;LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03; IP_ADDRESS=210.66.37.21; SYS_UP_TIME=14D23H34M21S;WANTXOK=99999; WANRXOK=99999;WANTXERROR=99999;WANRXERROR=99999; LANTXOK=99999;LANRXOK=99999;LANTXERROR=99999; LANRXERROR=99999;WIRELESSTXOK=99999;WIRELESSRXOK=99999; WIRELESSTXERROR=99999;WIRELESSRXERROR=99999; WAN_QUALITY=5;
System Up Notice	When system rebooted or restarted	If device have been rebooted or restarted, the log would be sent. Format : PRODUCT=WG-500P;VER=2.00.00;LOGNAME=SUN; DATE=07Mar26;TIME=15:23:32; WANMAC=09-00-0e-00-00-01;LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03; IP_ADDRESS=210.66.37.21; SYS_NAME=Cafehotspot;LOCATION=East;CITY=Taipei; COUNTRY=Taiwan; FIRMWARE=v1.01.02;MESSAGE=System_Up; Message = System_Reboot
System Account Activity Information	When system manager login or logout	A log will be sent if system manager (Administrator) login to or logout from the device Format: PRODUCT=WG-500P;VER=2.00.00;LOGNAME=SUN; DATE=07Mar26;TIME=15:23:32; WANMAC=09-00-0e-00-00-01;LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03; IP_ADDRESS=210.66.37.21; SYS_NAME=Cafehotspot;LOCATION=East;CITY=Taipei; COUNTRY=Taiwan; FIRMWARE=v1.01.02;MESSAGE=System_Up; Account Name = Admin Supervisor Operator Status= Login Logout Idle_Time_Out
Firmware Update Notice	When firmware update completed	A log will be sent if firmware update completed Format:

WG-500P & WG-500P M Hotspot in a Printer

Item	Default	Description
		PRODUCT=WG-500P;VER=2.00.00;LOGNAME=FUN; DATE=07Mar26;TIME=15:23:32; WANMAC=09-00-0e-00-00-01;LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03; IP_ADDRESS=210.66.37.21; MESSAGE=Success;OLD_FRIMWARE=v1.00.01; NEW_FIRMWARE=v1.00.02 Message = Success Fail
Wireless Association Information	Every 10 minute(s)	The range is range 5~60 minutes. A log including wireless users information will be sent according to specified interval time. Format: PRODUCT=WG-500P;VER=2.00.00;LOGNAME=WAI; DATE=07Mar26;TIME=15:23:32; WANMAC=09-00-0e-00-00-01;LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03; IP_ADDRESS=210.66.37.21; USER_NUM=15;SEQ=1-5;USER_MAC=02-34-3e-01-00;
User		
User Login	When user logged-in	A log including users information will be sent when user logged-in Format: PRODUCT=WG-500P;VER=2.00.00;LOGNAME=ULI;DATE=07Mar26; TIME=15:23:32;WANMAC=09-00-0e-00-00-01; LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03; IP_ADDRESS=210.66.37.21;USER_NAME=asdfg12;USER_IP=10.59.1.1; USER_MAC=02-34-3e-01-00;INTERFACE=Ethernet; USER_TYPE=Dynamic; User Type = Dynamic / Super / User Agreement / Radius / No-Auth When User Replenish login format: PRODUCT=WG-500P;VER=2.00.00;LOGNAME=URP;DATE=07Mar26; TIME=15:23:32; WANMAC=09-00-0e-00-00-01; LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03; IP_ADDRESS=210.66.37.21;USER_NAME=asdfg12; REP_USER_NAME=kifm2fs3;USER_IP=10.59.1.1; USER_MAC=02-34-3e-01-00; INTERFACE=Ethernet;

Item	Default	Description
		USER_TYPE=Dynamic; USED_TIME=24:00:00;TIME_LEFT=24:00:00 User Type = Dynamic / Radius
User Logout	When user logged-out	A log including users information will be sent when user logged –out Format: PRODUCT=WG-500P;VER=2.00.00;LOGNAME=ULO;DATE=07Mar26; TIME=15:23:32;WANMAC=09-00-0e-00-00-01; LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03; IP_ADDRESS=210.66.37.21;USER_NAME=asdfg12;USER_IP=10.59.1.1; USER_MAC=02-34-3e-01-00;INTERFACE=Ethernet; USER_TYPE=Dynamic;RXDATA=1234; TXDATA=1234; USED_TIME=24:00:00;LOGOUT_TYPE=Time_Up;TIME_LEFT=24:00:00 User Type = Dynamic / Super / User Agreement / Radius / No-Auth
Current User List	Every 10 minute(s)	The range is Range 5~60 minutes. A log including logged-in users information will be sent according to specified interval time Format: PRODUCT=WG-500P;VER=2.00.00;LOGNAME=CUL;DATE=07Mar26; TIME=15:23:32;WANMAC=09-00-0e-00-00-01; LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03; IP_ADDRESS=210.66.37.21;USER_NUM=0;SEQ=1-5; USER_NAME=asdfg12,USER_IP=10.59.1.2,USER_MAC=02-34-3e-01-00, INTERFACE=Ethernet,USER_TYPE=Dynamic,RXDATA=1234, TXDATA=1234,USED_TIME=24:00:00,SESSION=100,WLAN_SIG=N/A; USER_NAME=dk6uf2eg,USER_IP=10.59.1.3,USER_MAC=02-34-3e-01-02, INTERFACE=Wireless,USER_TYPE=Dynamic,RXDATA=1234, TXDATA=1234,USED_TIME=24:00:00,SESSION=100,WLAN_SIG=100%; User Type = Dynamic / Super / User Agreement / Radius / No-Auth User Name = If the type of user is Super/User Agreement/No-Auth , the username=****
Account and Billing		

WG-500P & WG-500P M Hotspot in a Printer

Item	Default	Description
Account Information	When an account is created	A log will be sent when an account is created Format: PRODUCT=WG-500P;VER=2.00.00;LOGNAME=ACI;DATE=07Mar26; TIME=15:23:32;WANMAC=09-00-0e-00-00-01; LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03; IP_ADDRESS=210.66.37.21;USER_NAME=asdfg12; ACCOUNT_TYPE=TimetoFinish; ACCOUNT_SERIAL=000002; ACCOUNT_PRICE= USD20.00; ACCOUNT_USAGE_TIME=10:59:59; BILLING_INDEX=1;BILLING_UNIT=2; Account Type = TimeToFinish / Accumulation / PostPaid Account Price = Currencyxx.xx Currency = AUD CHF EUR GBP JPY RIY USD
Billing Amount	When received amount	A log will be sent when received amount Format: PRODUCT=WG-500P;VER=2.00.00;LOGNAME=BLA; DATE=07Mar26; TIME=15:23:32;WANMAC=09-00-0e-00-00-01; LANMAC=09-00-0e-00-00-02; WLANMAC=09-00-0e-00-00-03; IP_ADDRESS=210.66.37.21;USER_NAME=username; BILL_TYPE=Cash, BILL_AMOUNT= USD50.00 Billing Type= Cash Credit_Card; Billing Amount = xx.xx Currency = AUD CHF EUR GBP JPY RIY USD.....

Click **Apply** button to save the new settings and the success dialog box appears. Click on **Back** to return to Logs setting screen.

3-2-3-2 Session Trace

Session Trace is an intelligent function to help service provider to trace every user's access behavior. When "session trace" is enable , the system will collect information such like destination IP, destination port, source IP, source MAC, source port by every user and send the collected information in text format file to specified TFTP server or Email Server.

SESSION TRACE

Session Trace : Disable	
TFTP Server	☐ Enable Primary TFTP Server IP Address Secondary TFTP Server IP Address
E-mail Server	☐ Enable Email Server : Email From : Email To : IP Address or Domain Name : SMTP Port : 25 ☐ E-mail (SMTP) server account : Username : Password : Name : Email address : Email address 1 : Email address 2 :
Send Session Trace log file every 10 minutes. (5~1440) (Note: Session Trace log file will also be sent also when 50 logs are collected)	
Apply	

Figure 3-2-22 Session Trace Setting Screen

Item	Default	Description
TFTP Server		
Session Trace	Disable	Disables or enables session trace function.
Primary TFTP Server IP Address	Empty	Enter the IP address of the primary TFTP server.
Secondary TFTP Server IP Address	Empty	Enter the IP address of the second TFTP server.
Send Session Trace log file every~ minutes.	10 minutes	The field means to send the session trace log file every interval minutes. The value range is 5 to 1440 (minutes).
Send to Email	Disable	Enables or disables the send to e-mail function.
E-mail Server		

WG-500P & WG-500P M Hotspot in a Printer

Item	Default	Description
IP Address or Domain Name	Empty	Enter the SMTP server IP address or domain name. The maximum allowed characters length is 50.
SMTP Port	Empty	The SMTP port allowed range is 25 or 2500 to 2599.
E-mail (SMTP) Server needs to check my account	Disable	If your SMTP server requires authentication before accepting e-mail, click on check box. These values (username and password) are supplied by your network administrator, SMTP server provider or ISP.
Username	Empty	Enter the username for the SMTP server. The maximum allowed characters length is 64.
Password	Empty	Enter the password for the SMTP server
Email From		
Name	Empty	Enter the name you would like to appear in the "message from" field of your outgoing message. The maximum allowed characters length is 20.
Email Address	Empty	Enter your e-mail address. This is the address others will use to send email to Email Address 1/Email Address 2.
Email To		
Email Address 1	Empty	Enter your first e-mail address to receive the logs.
Email Address 2	Empty	Enter your second e-mail address to receive the logs.

3-2-3-3 Bandwidth

The function enables administrator to limit bandwidth usage on a per user basis (MAC address). That prevents users from consuming a disproportionately large amount of bandwidth so every user gets a fair share of the available bandwidth.

BANDWIDTH

Bandwidth Management: Disable

The function enables administrator to limit bandwidth usage on a per user basis (MAC address).That prevents users from consuming a disproportionately large amount of bandwidth so every user gets a fair share of the available bandwidth.

Please setup the maximum Upstream/Downstream bandwidth

Maximum Upstream

☒ 64Kbps

☐ 64 Kbps(64~5120)

Maximum Downstream

☒ 128Kbps

☐ 64 Kbps(64~5120)

Apply

Figure 3-2-23 Bandwidth Setting Screen

Item	Default	Description
Bandwidth	Disable	Enables or disables Bandwidth Management.
Maximum Upstream	64Kbps	Specify the amount of upstream bandwidth.
Maximum Downstream	128Kbps	Specify the amount of downstream bandwidth.

3-2-3-4 SNMP

The SNMP Agent Configuration screen enables you to access to your device via Simple Network Management Protocol. If you are not familiar with SNMP, please consult your Network Administrator or consult SNMP reference material. You must first enable SNMP on the SNMP Agent Configuration screen.

SNMP

SNMP:: Disable

SNMP Port : (161 or 16100 ~ 16199)

Trap Port : (162 or 16200 ~ 16299)

No	Community Name	NMS Address	Privileges	Status
01	public	ANY	Read	Valid
02	private	ANY	Write	Valid
03		ANY	All	Invalid
04		ANY	All	Invalid
05		ANY	All	Invalid

Apply

Figure 3-2-24 SNMP Setting Screen

Item	Default	Description
SNMP	Disable	Disables or enables the SNMP management.
SNMP Port	161	If the SNMP enables, also allowed to specific the SNMP port number via NAT. The allowed SNMP port numbers are 161(default), 16100-16199 and Trap port numbers are 162 (default), 16200-16299. This Port setting is useful for remote control via NAT network.
Trap Port	162	
Configuration		
Community Name	public/private	Every unit with SNMP enable must be configured to recognize one or more community names up to 20 characters. The default setting for the community of entry 1 is “public” and for the entry 2 is “private” and others are empty.
NMS Address	ANY	The address of the NMS. The default settings for the NMS Networking are “ANY”.
Privileges	Read/Write	Choose “Read”, “Write”, “Trap Recipients” and “All” for different privileges. The default setting of the entry 2 is “write” and others are “read”.
Status	Valid/Invalid	Chosen “Valid” or “Invalid”. The default setting of entry 1, 2 are valid and others are invalid.

3-2-4 SECURITY

3-2-4-1 Pass Through

This function allow administrator to set some special devices pass through the WG-500P system. Because some network devices might be constructed under the WG-500P. However these devices needn't be checked and authorized. The WG-500P provides a pass through list and the administrator can control which devices can be pass through with authentication.

PASS THROUGH

Pass Through: Disable

Pass Through Destination allows the subscribers to access specified Internet websites without authentication, which is useful to promote selected services. Pass Through Subscriber is useful for VIP users without authentication. Pass Through LAN device is also useful for devices that do not have a web browser (cash registers, for example) or that are connected with LAN port (wireless access points, for example).

Please enter new pass through for destination (up to 20 entries)

☐ URL or Website:
☐ Start / End IP Address ~

Please enter new pass through for subscribers or LAN devices (up to 20 entries)

☐ Start / End IP Address ~
☐ IP Address: Subnet Mask:
☐ MAC Address: Mask: FF-FF-FF-FF-FF-FF

Description (max 20 characters) Add to List

Pass Through List

No.	Active	Address List	Type	Description	Delete
Delete All					

Apply

Figure 3-2-25 Pass through Setting Screen

Item	Default	Description
Pass Through	Disable	Enables or disables the pass through function.
Destination URL/IP Address Pass Through		
URL or Website	Empty	Enter the URL Page; please use this format such like "http://www.yahoo.com". The maximum character of the URL Page is 50. Note: 1. Please add www.apple.com into PASS THROUGH list in WG-500P. (iOS 6 device and later is required.)

Item	Default	Description
		2. Please add go.redirectingat.com for certain QR code apps.
Start / End IP Address	Empty	Enter the start / end IP address of you wants pass through.
Subscriber IP/MAC Address or LAN Device Pass Through		
Start / End IP Address	Empty	Enter the start / end IP address of you wants pass through.
IP Address	Empty	Enter the IP address of you wants pass through.
Subnet Mask	Empty	Enter the subnet mask of you wants pass through.
MAC Address	Empty	Enter the MAC address of you wants pass through.
Mask	Empty	Enter the subnet mask of you wants pass through.
Pass Through List	Display the pass through Information of WG-500P.	
No.	-	The index number of pass through address.
Active	Disable	Click on check box, active or inactive the pass through address.
Address List	-	Display the pass through address(s).
Type	-	Display the type of pass through address.
Delete	Disable	Select the check boxes and click 'Delete' to delete the pass through address(s).

Click **Add to List** button to add a new entry. Click **Apply** button to save the new settings. Click **Delete All & Apply** button to delete all entries.

Note: The priority of "pass through" is higher than "Filtering".

3-2-4-2 Filtering

Filtering allows the system administrator to have a list of restricted destinations, which is useful to block specified Internet websites or Intranet areas.

FILTERING

Filtering

Filtering allows the system administrator to have a list of restricted destinations, which is useful to block specified Internet websites or Intranet areas.

HTTP Message to display when a website is blocked

Please enter new restricted destination (up to 20 entries)

☒ URL or Website:
☐ Start / End IP Address ~
☐ IP Address: Subnet Mask:

Restricted Destination List

No.	Active	Address List	Delete

Figure 3-2-26 Filtering Setting Screen

Item	Default	Description
Filtering	Disable	Enables or disables filtering function.
HTTP Message to display when a website is blocked	The Web Site is blocked by System	Enter the http message. The maximum character of the HTTP message is 200.
Restrict Destination		
URL or Website	Empty	Enter the URL Page of you wants to filter; please use this format such like "http://www.yahoo.com". The maximum character of the URL Page is 50.
Start IP Address	Empty	Enter the start IP address of you wants to filter.
IP Address	Empty	Enter the destination IP address of you wants to filter.
Subnet Mask	Empty	Enter the destination subnet mask.
No	-	The index number of filtering address.

Item	Default	Description
Active	Disable	Click on check box, active or inactive the filtering address.
Address List	-	Display the filtering address(s).
Delete	Disable	Select the check boxes and click ' Delete ' to delete the filtering address(s).

Click **Add to List** button to add a new entry.

Click **Apply** button to save the new settings.

Click **Delete All & Apply** button to delete all entries.

3-2-4-3 Secure Remote

This feature allows you to create a secure connection to a remote site or back end system with VPN PPTP Client. If “Secure Remote” is enabled, the RADIUS packet/syslog will be transferred to this secure connection.

SECURE REMOTE

Secure Remote: Disable

This feature allows you to create a secure connection to a remote site or back end system with VPN PPTP Client. When this feature is enable, the RADIUS packet/syslog/HTTP/session trace will be transferred to this secure connection.

PPTP Client

☐ Auto-connect at Start-up (Always connect)
PPTP Server IP address :
Username :
Password :

Status

VPN Tunnel : Offline
Client IP :

Figure 3-2-27 Secure Remote Setting Screen

Item	Default	Description
Auto-connect at Start-up (Always connect)	Disable	Enable the check box to automatically establish the PPTP connection.
PPTP Server IP address	Empty	Enter the PPTP server IP address provided by your ISP.
Username	Empty	Enter the user name provided by your ISP. The user name can consist of up to 80 alphanumeric characters and is case sensitive.
Password	Empty	Enter the user password provided by your ISP. The password can consist of up to 80 alphanumeric characters and is case sensitive.
start / stop connection	Click on Start/Stop connection button to start/stop PPTP connection.	
VPN Tunnel	Display the status.	
Client IP	Display the IP address.	

Click **refresh** button to delete all entries.

3-2-5 SYSTEM

3-2-5-1 System

Define the WG-500P System configuration.

SYSTEM																															
System/Host Name	(Max.=50)																														
Domain Name	(Max.=50)																														
Location Information	<table border="1"> <tr><td>Location Name:</td><td> </td><td>(Max.=50)</td></tr> <tr><td>Address:</td><td> </td><td>(Max.=200)</td></tr> <tr><td>City:</td><td> </td><td>(Max.=50)</td></tr> <tr><td>State / Province:</td><td> </td><td>(Max.=50)</td></tr> <tr><td>Zip / Postal Code:</td><td> </td><td>(Max.=10)</td></tr> <tr><td>Country:</td><td> </td><td>(Max.=50)</td></tr> <tr><td>Contact Name:</td><td> </td><td>(Max.=50)</td></tr> <tr><td>Contact Telephone:</td><td> </td><td>(Max.=50)</td></tr> <tr><td>Contact FAX:</td><td> </td><td>(Max.=50)</td></tr> <tr><td>Contact Email:</td><td> </td><td>(Max.=50)</td></tr> </table>	Location Name:		(Max.=50)	Address:		(Max.=200)	City:		(Max.=50)	State / Province:		(Max.=50)	Zip / Postal Code:		(Max.=10)	Country:		(Max.=50)	Contact Name:		(Max.=50)	Contact Telephone:		(Max.=50)	Contact FAX:		(Max.=50)	Contact Email:		(Max.=50)
Location Name:		(Max.=50)																													
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Contact FAX:		(Max.=50)																													
Contact Email:		(Max.=50)																													
Date/Time	Time Zone: GMT v ☐ Manual Setting Date: 2013 v / 10 v / 30 v (Year/Month/Day) Time: 09 v : 48 v : 34 v (Hour : Minute : Second) ☐ NTP Setting Date: 2013/10/30 Time: 09:48:34 Update Now Server IP/Domain Name 1: time.nist.gov v Fail Server IP/Domain Name 2: www.nist.gov v Fail Update Time: 0 v hours ☐ Daylight Saving Time Start Date: 4 v Month / 1 v Day End Date: 10 v Month / 31 v Day																														
NAT (Network Address Translation)	☐ Enable ☒ IP Plug and Play ☐ Disable																														
Session Limit	☐ Enable 300 (1~1024) ☐ Disable																														
Layer 2 Isolation Security	☐ Enable ☐ Disable																														
Secure administrator IP addresses	☐ Any ☐ Specify <table border="1"> <tr><td>1</td><td> </td><td>~</td><td> </td></tr> <tr><td>2</td><td> </td><td>~</td><td> </td></tr> <tr><td>3</td><td> </td><td>~</td><td> </td></tr> <tr><td>4</td><td> </td><td>~</td><td> </td></tr> <tr><td>5</td><td> </td><td>~</td><td> </td></tr> </table>	1		~		2		~		3		~		4		~		5		~											
1		~																													
2		~																													
3		~																													
4		~																													
5		~																													
Multicast Pass Through	☐ Enable ☒ Disable																														
Allow remote user to ping the device	☐ Enable ☐ Disable																														
SSL Certificate	☐ Default ☐ Customer Certificate																														
Apply																															

Figure 3-2-28 System Setting Screen

WG-500P & WG-500P M Hotspot in a Printer

Item	Default	Description
System/Host Name	Empty	The system name can consist of up to 50 alphanumeric characters.
Domain Name	Empty	The Domain name can consist of up to 50 alphanumeric characters.
Location Information	Empty	Enter your location information.
Date/Time		
Time Zone	GMT	Select the appropriate time zone for your location.
Manual Setting	Click Manual Setting to set the system date and time.	
Date	Year/Month/Day	Enter the Date for the system.
Time	Hour:Minute:Second	Enter the Time for the system.
NTP Setting	Enable	Enables or disables NTP (Network Time Protocol) Time Server. Network Time Protocol can be utilized to synchronize the time on devices across a network. A NTP Time Server is utilized to obtain the correct time from a time source and adjust the local time.
Server IP/Domain Name	Empty	Enter the IP address/domain name of NTP server. The maximum allowed characters length is 100.
Update Time	0 hours	Enter the number of hours for update time.
Daylight Saving Time	Disable	Enables or disables Daylight Saving Time (DST).
	Month/Day	Set the Daylight Saving Time (DST) on the WG-500P. Adjust the begin time and end time.
NAT (Network Address Translation)		
NAT	Enable	Enables or disables NAT Address Translation function.
User Session Limited	Enable,300	Enables or disables user session limit function. This feature provides you an ability to control a number of sessions allowed for particulars user(s) at the one time.
IP Plug and Play (iPnP Technology)	Enable	Enables or disables plug & play function. When enabled, the user needn't change their network configuration to access the Internet.
Layer 2 Isolation Security	Enable	If enable plug and play is selected, you can enable Layer 2 Isolation Security function. When the "Layer 2 Isolation Security" enabled, everyone cannot communicate with each other.
Secure administrator IP Addresses	Any	Options: Any and Specify. Administrator can specify 5 IP addresses or a range to allow remote control access from

WG-500P & WG-500P M Hotspot in a Printer

Item	Default	Description
		network.
Multicast Pass Through	Disable	This function allows for multiple transmissions to specific recipients at same time.
Allow remote user to ping the device	Enable	This function allows remote user to ping the WG-500P through Internet. Ping is normally used to test the physical connection between two devices, to ensure that everything is working correctly.
SSL Certificate	Disable	Option: default or customize certificate, These are two ways to create a certificate, one is purchase a certificate from a certificate authority (Ex. Verisign or Thawte), and another is creating a self-certificate (For example: Uses OpenSSL tool).

Click **Apply** button to save the new settings.

3-2-5-2 WAN/LAN

WAN / LAN

LAN	Device IP Address and Subnet mask settings IP Address: 10.59.1.1 Subnet Mask: 255.255.255.0
WAN MAC Address	☒ Default ☐ Change to: 00 : 00 : 00 : 00 : 00
WAN MTU Setting	Wan Port Maximum Transmission Unit 1500
WAN Port Mode	☒ DHCP Client (Mostly for Cable modem users or Local Area Network) ☐ Static IP (Mostly for advanced Local Area Network environment) Static IP information (from your ISP) IP Address: 0.0.0.0 Subnet Mask: 0.0.0.0 Gateway IP address: 0.0.0.0 Primary DNS Server: Secondary DNS Server: ☐ PPPoE (Usually for ADSL modem users) Your ISP requires a username and password. Username: Password: PPP MTU Setting: 1492 TCP MSS Setting: 1452 Service Name: ☒ Connect on Demand Max Idle Time: 10 Min. ☐ Keep alive Redial Period: 30 Sec. ☐ PPTP (Usually for Europe ADSL modem users) Your ISP requires a username, password, and PPTP setting My IP Address: My Subnet Mask: Gateway IP address: PPTP Server IP Address: Username: Password: PPP MTU Setting: 1460 TCP MSS Setting: 1400 Connection ID/Name: ☒ Connect on Demand Max Idle Time: 10 Min. ☐ Keep alive Redial Period: 30 Sec.

Figure 3-2-29 WAN/LAN Setting Screen

Item	Default	Description
LAN		
IP Address	10.59.1.1	The internal LAN IP address of your WG-500P.
Subnet Mask	255.255.255.0	Enter the subnet mask for the IP address.
WAN MAC Address		
IP Address	The default MAC address is set to the WAN physical interface on device.	
DHCP Client	The device can work as a DHCP client. This allows the device to obtain the IP address and other TCP/IP settings from your ISP. If your xDSL/Cable comes with this feature, please enable Use DHCP Client.	
Static IP		
IP Address	Enter the IP address for the xDSL/Cable connection (provided by your ISP).	
Subnet Mask	Enter the subnet mask for the IP address.	
Gateway IP Gateway	Enter the Gateway IP address for the xDSL/Cable connection (provided by your ISP).	
Primary DNS Server	A primary DNS server IP address for the xDSL/Cable connection (provided by your ISP).	
Secondary DNS Server	A secondary DNS server IP address for the xDSL/Cable connection (provided by your ISP). If the primary DNS Server IP were not available, meanwhile, Secondary DNS Server IP would start in the same time.	
PPPoE		
User Name	Empty	Enter your PPPoE account name. The user name can consist of up to 80 alphanumeric characters and is case sensitive.
Password	Empty	Enter your PPPoE password. The password can consist of up to 80 alphanumeric characters and is case sensitive.
PPP MTU Setting	1492	MTU (Maximum Transfer Unit) specifies maximum transmission unit size.
TCP MSS Setting	1452	MSS (Maximum Segment Size) specifies maximum segment size.
Service Name	Empty	Enter the service name provided by your ISP. The service name can consist of up to 64 alphanumeric characters and is case sensitive.
Connect on Demand	Enable	You can configure your WG-500P to cut your connection with your ISP after a specified period of time (Max Idle Time). If you have been disconnected due to inactivity, Connect on Demand enables your WG-500P to automatically re-establish your connection as soon as you attempt to access the Internet again. If you wish to activate Connect on Demand, click the radio button. If you want your Internet connection to remain, click the radio button of keep alive. The Max Idle Time maximum value is 65535 minutes.
Max Idle Time	10 Minutes	
Keep alive	Disable	This option keeps your PPPoE enabled Internet access connected

WG-500P & WG-500P M Hotspot in a Printer

Item	Default	Description
Redial Period	30 Seconds	indefinitely, even when it sits idle. The Redial Period maximum value is 65535 seconds.

3-2-5-3 Server

Server

SERVER

Server Static DHCP Table

Web Server	☒ HTTP Port: 80 (80,8010-8060) ☐ HTTPS Port: 443 (443,4430-4440) Administrator Idle-Timeout: 5 Min(s) (1 - 1440) Account Manager Idle-Timeout: 5 Min(s) (1 - 1440)
DHCP Server	☐ DHCP Disable ☐ DHCP Relay DHCP Server IP Address: ☒ DHCP Server IP Pool Starting Address: 10.59.1.2 Pool Size: 253 (Max=253) Lease Time: 300 (Minutes) Primary DNS Server: 168.95.1.1 Secondary DNS Server:
Email Server Redirect	IP Address or Domain Name: SMTP Port: (25, 2500 - 2599)

[Apply](#)

Figure 3-2-30 Server Setting Screen

Item	Default	Description
Web Server		
HTTP Port	80	Enter the HTTP port number. The HTTP port allowed range is 80 or 8010 to 8060. For access the WG-500P system under NAT, please tab the "http://HTTP Port IP Address: Port Number".
HTTPS Port	443	Enter the HTTPS port number. The HTTPS port allowed range is 443 or 4430 to 4440. For access the WG-500P system, please tab the "https://HTTPS Port IP Address: Port Number".
Administrator Idle-Timeout	5 Minutes	The idle time out valid range is 1-1440. If the idle time out is set as 5 minutes, it means if the administrator doesn't send packet in 5 minutes, the administrator will logout automatically.
DHCP Server	Enable	There are three types of DHCP Services. DHCP Disable—Disable the DHCP server function. DHCP Relay—Enable DHCP Relay function.

WG-500P & WG-500P M Hotspot in a Printer

Item	Default	Description
		DHCP Server—Enable DHCP server function.
DHCP Relay		To route DHCP through an external server, the administrator needs to enable the DHCP relay and assign a valid DHCP server IP address.
DHCP Server IP Address	Empty	Enter the IP address of DHCP server.
DHCP Server		The WG-500P's DHCP server is turned on and running by default when you install it in your network.
DHCP Pool Starting Address	10.59.1.2	Enter the DHCP Pool Starting IP address.
Pool Size	253	The DHCP pool size range is 1 to 512.
Lease Time	300 Minutes	The DHCP lease time. The DHCP lease time range is 1 to 71582788 minutes.
Primary DNS Server	168.95.1.1	Enter the IP address of the network's primary DNS server.
Secondary DNS Server	Empty	Enter the IP address of a second DNS server on the network.
Email Server Redirect		To prevent some subscriber's original Email server may protect by firewall or NAT network. WG-500P provides an extra Email server parameter to forward the subscriber's Email. The WG-500P not only forwards the subscribers' E-mail via other E-mail server but also changes the SMTP header. The recipient of your E-mail sees the message as if you sent it from your local Internet Service Provide, not form the hotel or other place. Note: Before setting this sever, please make sure the e-mail sever relay function is opened. It must not exceed 50 characters.
IP Address or Domain Name	Empty	Enter the E-mail server IP address or domain name.
SMTP Port	25	Enter the SMTP port number for mail server. The SMTP port allowed range is 25 or 2500 to 2599.

Click **Apply** button to save the new settings.

Static DHCP

This function allows subscriber to assign IP address on the LAN to specific individual computers based on their MAC Address.

SERVER

Server Static DHCP Table

	IP	MAC		IP	MAC
1			26		
2			27		
3			28		
4			29		
5			30		
6			31		
7			32		
8			33		
9			34		
10			35		
11			36		
12			37		
13			38		
14			39		
15			40		
16			41		
17			42		
18			43		
19			44		
20			45		
21			46		
22			47		
23			48		
24			49		
25			50		

Apply

Figure 3-2-31 Server Setting Screen

Item	Default	Description
IP Address	Empty	Enter the IP address that subscriber want to assign to the computer on LAN with the MAC address the subscriber will also specify.
MAC Address	Empty	Enter the MAC address of a computer on your LAN.

Click **Apply** button to save the new settings.

3-2-5-4 Customization

Login Page

The WG-500P provides three different login page formats, including standard, redirect, advanced and frame format.

CUSTOMIZATION

[Login Page](#)
[Logo](#)
[Information Window](#)
[Account Printout](#)
[Credit Card](#)
[User Agreement Page](#)

Choose a login page type:

☐ **Standard**

Custom the message on the **standard** login page:

☐ Logo	
Title	Welcome (Max. 80 characters)
Subtitle	Wireless Subscriber Gateway (Max. 80 characters)
Username	Username (Max. 20 characters)
Password	Password (Max. 20 characters)
Enter Button	Enter (Max. 20 characters)
Cancel Button	Cancel (Max. 20 characters)
☐ Footnote	Contact us if you have any qu (Max. 240 characters)
☒ Copyright	Copyright (c) 2013-2015 All R (Max. 80 characters)
Background Color	FFFFFF View Color Grid

[Preview Standard Login Page](#)

☐ **Redirect**

Redirect Login Page URL : [Code](#)

☐ **Advanced**

Welcome Slogan	
Page Background	☐ None ☐ Background Color: fffffff View Color Grid
Article	
Article Text Color	000000 View Color Grid
Article Background Color	☐ None ☐ fffffff View Color Grid
Information	
Comments	

☐ **Frame**

Top Frame	URL : http://
Bottom Frame	This frame will show the standard login page

[Apply](#)

Figure 3-2-32 Customization Setting Screen

Item	Default	Description
Standard		For some service providers, they may hope to have a customize subscriber's login page to the users. This function helps them to realize the ideal. The page elements are including login page title, background color, subtitle etc.
Logo	Disable	Select the check box to display service provider's logo.
Title	Welcome	Enter the title name of subscriber login page. The maximum allowed characters length is 80.
Subtitle	Hot Spot Internet Service	Enter the subtitle name of subscriber login page. The maximum allowed characters length is 80.
Footnote	Disable	Allow the administrator to input the footnote such like "Pleas Contact to our Customer Service Center, EXT 141". The maximum character of the footnote is 240.
Copyright	Enable	The copyright is allowed the administrator to input a paragraph in the subscriber login page for copyright information. The maximum character of the copyright is 80.
Background Color	FFFFFF	The background text color can be specified color. For the specified text color format please views the color grid. The allowed format is Hexadecimal.
 Figure 3-2-33 Login Page Screen		
Redirect		This allow service provider to redirect the subscriber's browser to a specified home

WG-500P & WG-500P M Hotspot in a Printer

Item	Default	Description
	page.	
Copy and paste the following HTML Code into your home page to produce redirect subscriber login page. Redirect Login Page Code <pre> <html> <body style="font-family: Arial" bgcolor="#FFFFFF"> <form method="post" action="http://1.1.1.1/login.cgi" name="apply"> <div align="center"> <table cellSpacing="0" border="1" borderStyle="solid" borderColor="black" width="50%" bgcolor="#FFFFFF" border="1"> <tr> <td align="center" width="100%" bgcolor="#d7f0d7" colspan="2"> Welcome </td> </tr> <tr> <td align="right" width="35%" bgcolor="#eaeaea"> Username: </td> <td width="65%"> <input type="text" name="username" size="25"> </td> </tr> <tr> <td align="right" width="35%" bgcolor="#eaeaea"> Password: </td> <td width="65%"> <input type="password" name="password" size="25"> </td> </tr> <tr> <td align="center" width="100%" colspan="2"> <input type="submit" name="apply" value="Enter" style="font-family: Arial"> <input type="reset" name="clear" value="Clear" style="font-family: Arial"> </td> </tr> </table> </div> </form> </body> </html> </pre>		
Figure 3-2-34 Preview Redirect Login Page Code		
Advanced	This function allow user to design login page of WG-500P.	
Welcome Slogan	Welcome	The maximum allowed characters length is 80.
Page Background	None	The page background can be none or specified color. For the background color format please views the color grid. The allowed format is Hexadecimal.
Article	Empty	The article is allowed the administrator to input a paragraph in the subscriber login page for advisement or announcement. The maximum character of the article is 1024.
Article Text Color	000000	The article text color can be specified color. For the specified text color format please views the color grid. The allowed format is Hexadecimal.
Article Background Color	None	The article background can be specified color. For the background color format please views the color grid. The allowed format is Hexadecimal.
Information	Empty	Allow the administrator to input the text information such like address, telephone number and fax information. The maximum character of the information is 80.

Item	Default	Description
Comments	Empty	Allow the administrator to input the text comments such like "Please Contact to our Customer Service Center, EXT 141". The maximum character of the comment is 80.
Frame		If "Frame" is selected the subscriber login page will be separate into Top Frame and Bottom Frame. Bottom Frame is a default format for username and password input, Top Frame is allowed to be specified a URL to link.
Top Frame URL Link	Empty	The input format can be http://www.yahoo.com. The maximum character of the URL Link is 200.
Bottom Frame	-	This frame will show the standard login page.

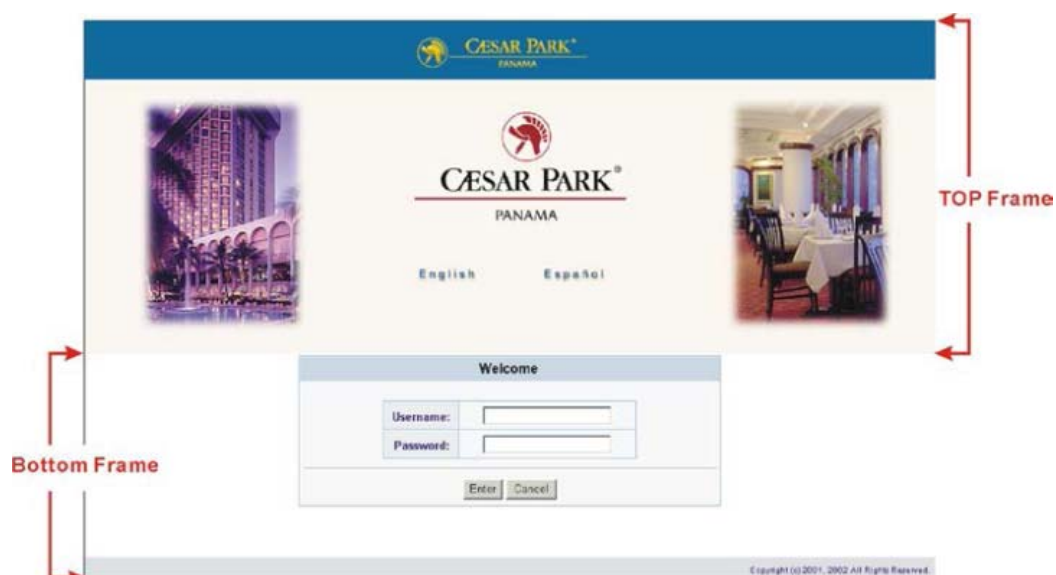


Figure 3-2-35 Example-Login Page Screen

Logo

This function allows service provider to upload the customer's logo image file which can be shown on the standard login page.

CUSTOMIZATION

Login Page

Logo

Information Window

Account Printout

Credit Card

User Agreement Page

Upload a logo image to be shown on the standard login page and account printout.

Handlink

Logo

Select

Delete

Maximum file size is 60 kbytes. Recommended dimension is approximately 200x50 pixels.

Apply

Figure 3-2-36 Logo Setting Screen

Item	Default	Description
File Path	Empty	Enter the file pathname of the logo file in the File Path field.

Click **Apply** button to save the logo file to system.

Click **Delete** button to delete the logo file.

Information Window

This function allow service provider can decide whether they want an “Information Window” pop-up on subscriber PC when authenticate successful or not and specified text of information window. Subscriber can type “http://1.1.1.1/info” to open the information window again or enter “http://1.1.1.1/logout” to logout immediately if accumulation billing selected.

CUSTOMIZATION

Login Page

Logo

Information Window

Account Printout

Credit Card

User Agreement Page

Customize the pop-up message that appears after successful subscriber login. The subscriber can type http://1.1.1.1/info to open this window again.

☒ Display Information Window after a subscriber logs in successfully

Information Window Type

☐ Redirect

☒ Pop Up

☒ Allow subscriber to close the pop-up window

Information Window Contents

Window Name

Information Window

(Max. 30 character)

Main message

You can use Internet now!

(Max. 30 character)

Message Description

This is an information window

(Max. 150 character)

Time count label

Remaining Usage

(Max. 30 character)

☐ Warning/Alarm message

If you want to stop using the

(Max. 150 character)

☐ Notice Message

Notice Text 1

Notice!

(Max. 150 character)

Notice Text 2

If you are using a VPN (virtu

(Max. 150 character)

Notice Text 3

(Max. 150 character)

Preview

Apply

Figure 3-2-37 Example-Login Page Screen

Information Window

You can use Internet now!

This is an information window that shows the usage. You can type http://1.1.1.1/info to open this window again without VPN connection.

Remaining Usage HH:MM:SS

If you want to stop using the Internet, click the "Logout" button.

Notice!

If you are using a VPN (virtual private network), close the message window before you open a VPN connection.

Top Up

Logout

Window Name

Main message

Message Description

Time count label

Warning/Alarm message

Notice Message

Figure 3-2-38 Information Window

81

Billing Type=Time to Finish

Can be topped up by subscriber=Enable

Information Window
You can use Internet now!
This is an information window that shows the usage. You can type
http://1.1.1.1/info to open this window again without VPN connection.
Remaining Usage HH:MM:SS

Figure 3-2-39 Information Window

Billing Type=Accumulation

Can be topped up by subscriber=Disable

Information Window
You can use Internet now!
This is an information window that shows the usage. You can type
http://1.1.1.1/info to open this window again without VPN connection.
Remaining Usage HH:MM:SS

Figure 3-2-40 Information Window

Billing Type=Accumulation

Can be topped up by subscriber=Enable

Information Window
You can use Internet now!
This is an information window that shows the usage. You can type
http://1.1.1.1/info to open this window again without VPN connection.
Remaining Usage HH:MM:SS

Figure 3-2-41 Information Window

Account Printout

This function allow service provider to specified text of account printout.

CUSTOMIZATION

Login Page Logo Information Window **Account Printout** Credit Card User Agreement Page

☒ Title:	☒ Format 1: Welcome1 (Max.=75) ☐ Format 2: (Max.=75)
☒ Subtitle:	☒ Format 1: WG-500P (Max.=60) ☐ Format 2: (Max.=60)
Username:	Username: (Max.=24)
Password:	Password: (Max.=24)
☒ Billing Method:	Billing: (Max.=24) Time to Finish: (Max.=24) Accumulation: (Max.=24)
☒ Billing Profile:	Service: (Max.=24)
☒ Purchase Unit:	Unit: (Max.=24)
☒ Usage Time:	Usage Time: (Max.=24)
☒ Price:	Total (Max.=24)
☒ Tax:	Tax: (Max.=24) TOTAL: Total (Max.=24)
ESSID:	ESSID: (Max.=24)
☒ Wireless Security:	WPA: (Max.=24) WPA2: (Max.=24) MixMode: (Max.=24)
☒ Additional Label 1:	(Max.=24) Value: (Max.=24)
☒ Additional Label 2:	(Max.=24) Value: (Max.=24)
☒ Print out Time:	Format: yyyy/mm/dd HH:mm:ss (HH:24h hh:12h tt:AM/PM)
☒ Expiration Time:	Description: Activate your account before: (Max.=24x3) Format: yyyy/mm/dd HH:mm:ss (HH:24h hh:12h tt:AM/PM) Accumulation: Please finish your usage time within 3 months after your last login. (Max.=24x4)
☒ Ending:	Thank you! (Max.=24x10)
☒ QR Code:	Printout the QR Code.

 [Preview of account generator printer output](#)

[Apply](#)

Figure 3-2-42 Account Printout Customization Setting Screen

Note: If you don't print out QR code on the ticket, please disable "QR Code".

Credit Card

CUSTOMIZATION

Login Page Logo Information Window Account Printout **Credit Card** User Agreement Page

Standard Login Page	Customize the additional credit card message for the standard login page: Credit Card Message or Click here to pay by cred (Max:80 characters) Preview Standard Login Page																																														
Service Selection Page	Customize the message for the service selection page <table border="1"> <tr> <td>Service Selection Message</td> <td>Choose from the following (Max:80 characters)</td> </tr> <tr> <td>Purchase Unit Message</td> <td>How much Internet access (Max:80 characters)</td> </tr> <tr> <td>Notification Message 1</td> <td>*Note: There is no refund o (Max:160 characters)</td> </tr> <tr> <td>Notification Message 2</td> <td>*Please note that time bloc (Max:160 characters)</td> </tr> <tr> <td>Notification Message 3</td> <td>(Max:160 characters)</td> </tr> <tr> <td>Enter Payment Information</td> <td>Enter Payment Information (Max:160 characters)</td> </tr> <tr> <td>Enter Credit Card Number</td> <td>Credit card number: (Max:80 characters)</td> </tr> <tr> <td>Enter Credit Card expiration date</td> <td>Credit card expiration date: (Max:80 characters)</td> </tr> <tr> <td>☐ Card Verification Value</td> <td>Security code: (Max:80 characters)</td> </tr> <tr> <td>Enter Email Address</td> <td>Enter Email Address: (Max:80 characters)</td> </tr> <tr> <td>Email Button</td> <td>Email this webpage to mys (Max:40 characters)</td> </tr> <tr> <td>Submit Button</td> <td>Submit Transaction and Lc (Max:40 characters)</td> </tr> </table> Additional Customer Data Merchants may provide additional customer information with a transaction, based on their respective requirements. <table border="1"> <tr> <td>☐ Credit Card Code</td> <td>Credit Card Code: (Max:80 characters)</td> </tr> <tr> <td>☐ Customer ID</td> <td>Customer ID: (Max:40 characters)</td> </tr> <tr> <td>☐ First/Last Name</td> <td>First Name: (Max:20 characters) Last Name: (Max:20 characters)</td> </tr> <tr> <td>☐ Company</td> <td>Company: (Max:40 characters)</td> </tr> <tr> <td>☐ Address</td> <td>Address: (Max:40 characters)</td> </tr> <tr> <td>☐ City</td> <td>City: (Max:40 characters)</td> </tr> <tr> <td>☐ State/Province</td> <td>State/Province: (Max:40 characters)</td> </tr> <tr> <td>☐ ZIP/Postal Code</td> <td>ZIP/Postal Code: (Max:40 characters)</td> </tr> <tr> <td>☐ Country</td> <td>Country: (Max:40 characters)</td> </tr> <tr> <td>☐ Phone</td> <td>Phone: (Max:40 characters)</td> </tr> <tr> <td>☐ Fax</td> <td>Fax: (Max:40 characters)</td> </tr> </table> Preview of Service Selection Page	Service Selection Message	Choose from the following (Max:80 characters)	Purchase Unit Message	How much Internet access (Max:80 characters)	Notification Message 1	*Note: There is no refund o (Max:160 characters)	Notification Message 2	*Please note that time bloc (Max:160 characters)	Notification Message 3	(Max:160 characters)	Enter Payment Information	Enter Payment Information (Max:160 characters)	Enter Credit Card Number	Credit card number: (Max:80 characters)	Enter Credit Card expiration date	Credit card expiration date: (Max:80 characters)	☐ Card Verification Value	Security code: (Max:80 characters)	Enter Email Address	Enter Email Address: (Max:80 characters)	Email Button	Email this webpage to mys (Max:40 characters)	Submit Button	Submit Transaction and Lc (Max:40 characters)	☐ Credit Card Code	Credit Card Code: (Max:80 characters)	☐ Customer ID	Customer ID: (Max:40 characters)	☐ First/Last Name	First Name: (Max:20 characters) Last Name: (Max:20 characters)	☐ Company	Company: (Max:40 characters)	☐ Address	Address: (Max:40 characters)	☐ City	City: (Max:40 characters)	☐ State/Province	State/Province: (Max:40 characters)	☐ ZIP/Postal Code	ZIP/Postal Code: (Max:40 characters)	☐ Country	Country: (Max:40 characters)	☐ Phone	Phone: (Max:40 characters)	☐ Fax	Fax: (Max:40 characters)
Service Selection Message	Choose from the following (Max:80 characters)																																														
Purchase Unit Message	How much Internet access (Max:80 characters)																																														
Notification Message 1	*Note: There is no refund o (Max:160 characters)																																														
Notification Message 2	*Please note that time bloc (Max:160 characters)																																														
Notification Message 3	(Max:160 characters)																																														
Enter Payment Information	Enter Payment Information (Max:160 characters)																																														
Enter Credit Card Number	Credit card number: (Max:80 characters)																																														
Enter Credit Card expiration date	Credit card expiration date: (Max:80 characters)																																														
☐ Card Verification Value	Security code: (Max:80 characters)																																														
Enter Email Address	Enter Email Address: (Max:80 characters)																																														
Email Button	Email this webpage to mys (Max:40 characters)																																														
Submit Button	Submit Transaction and Lc (Max:40 characters)																																														
☐ Credit Card Code	Credit Card Code: (Max:80 characters)																																														
☐ Customer ID	Customer ID: (Max:40 characters)																																														
☐ First/Last Name	First Name: (Max:20 characters) Last Name: (Max:20 characters)																																														
☐ Company	Company: (Max:40 characters)																																														
☐ Address	Address: (Max:40 characters)																																														
☐ City	City: (Max:40 characters)																																														
☐ State/Province	State/Province: (Max:40 characters)																																														
☐ ZIP/Postal Code	ZIP/Postal Code: (Max:40 characters)																																														
☐ Country	Country: (Max:40 characters)																																														
☐ Phone	Phone: (Max:40 characters)																																														
☐ Fax	Fax: (Max:40 characters)																																														
Successful Page	Customize the message for the successful page <table border="1"> <tr> <td>Successful Message</td> <td>You may now use the Inter (Max:80 characters)</td> </tr> <tr> <td>Notification Message 1</td> <td>IMPORTANT! Make a note (Max:160 characters)</td> </tr> <tr> <td>Notification Message 2</td> <td>(Max:160 characters)</td> </tr> <tr> <td>Account Information</td> <td>This is your account inform (Max:160 characters)</td> </tr> <tr> <td>Username</td> <td>Your username is (Max:80 characters)</td> </tr> <tr> <td>Password</td> <td>Your password is (Max:80 characters)</td> </tr> <tr> <td>Usage Time</td> <td>Your usage time is (Max:80 characters)</td> </tr> <tr> <td>Expiration Time</td> <td>Please activate your accou (Max:80 characters)</td> </tr> <tr> <td></td> <td>Format : yyyy/mm/dd HH : mm : ss (HH:24h hh:12h AM/PM)</td> </tr> <tr> <td>Email Button</td> <td>E-mail this webpage to my (Max:40 characters)</td> </tr> <tr> <td>Submit Button</td> <td>Use this account to LOGIN (Max:40 characters)</td> </tr> </table> Preview of Successful Page	Successful Message	You may now use the Inter (Max:80 characters)	Notification Message 1	IMPORTANT! Make a note (Max:160 characters)	Notification Message 2	(Max:160 characters)	Account Information	This is your account inform (Max:160 characters)	Username	Your username is (Max:80 characters)	Password	Your password is (Max:80 characters)	Usage Time	Your usage time is (Max:80 characters)	Expiration Time	Please activate your accou (Max:80 characters)		Format : yyyy/mm/dd HH : mm : ss (HH:24h hh:12h AM/PM)	Email Button	E-mail this webpage to my (Max:40 characters)	Submit Button	Use this account to LOGIN (Max:40 characters)																								
Successful Message	You may now use the Inter (Max:80 characters)																																														
Notification Message 1	IMPORTANT! Make a note (Max:160 characters)																																														
Notification Message 2	(Max:160 characters)																																														
Account Information	This is your account inform (Max:160 characters)																																														
Username	Your username is (Max:80 characters)																																														
Password	Your password is (Max:80 characters)																																														
Usage Time	Your usage time is (Max:80 characters)																																														
Expiration Time	Please activate your accou (Max:80 characters)																																														
	Format : yyyy/mm/dd HH : mm : ss (HH:24h hh:12h AM/PM)																																														
Email Button	E-mail this webpage to my (Max:40 characters)																																														
Submit Button	Use this account to LOGIN (Max:40 characters)																																														
Fail Page	Customize the message for the fail page <table border="1"> <tr> <td>Notification Message 1</td> <td>Your card could not be pro (Max:160 characters)</td> </tr> <tr> <td>Notification Message 2</td> <td>Please enter a different cre (Max:160 characters)</td> </tr> <tr> <td>Notification Message 3</td> <td>Thank you! (Max:160 characters)</td> </tr> <tr> <td>Try Again Button</td> <td>Try Again (Max:40 characters)</td> </tr> </table> Preview of Fail Page	Notification Message 1	Your card could not be pro (Max:160 characters)	Notification Message 2	Please enter a different cre (Max:160 characters)	Notification Message 3	Thank you! (Max:160 characters)	Try Again Button	Try Again (Max:40 characters)																																						
Notification Message 1	Your card could not be pro (Max:160 characters)																																														
Notification Message 2	Please enter a different cre (Max:160 characters)																																														
Notification Message 3	Thank you! (Max:160 characters)																																														
Try Again Button	Try Again (Max:40 characters)																																														

[Apply](#)

Figure 3-2-43 Credit Customization Setting Screen

Item	Description
Standard Login Page	This function allow service provider to customize the additional credit card message for the standard login page.
Service Selection Page	This function allow service provider to customize the additional credit card message for the standard login page.
Fail Page	This function allow service provider to customize the message for the fail page.

Click **Apply** button, the success dialog box appears. Click on **Back** to return to Credit Card Customization setting screen.

User Agreement Page

This function allow user to design user agreement page of Internet Subscriber Server.

CUSTOMIZATION

Login Page

Logo

Information Window

Account Printout

Credit Card

User Agreement Page

Title

User Agreement Page

(max.100 Character)

Title Text Color

000000

View Color Grid

Article

(max.5000 Character)

Article Text Color

000000

View Color Grid

Article Background Color

FFFFFF

View Color Grid

Page Background Color

FFFFFF

View Color Grid

Agree Button

Agree

(max.50 Character)

Disagree Button

Do not agree

(max.50 Character)

Preview Standard User Agreement Page

Apply

Figure 3-2-44 User Agreement Page Setting Screen

3-2-5-5 Portal Page

This feature allows redirecting subscriber's browser to a specified portal page after successful login.

PORTAL PAGE

Set to redirect subscriber to a portal page after successful login.

URL Link	URL : http://
----------	--

Apply

Figure 3-2-45 Portal Page Setting Screen

Item	Default	Description
URL Link	Empty	Enter the URL Link page. The input format can be "http://www.yahoo.com". The maximum character of the URL Link is 200.

Click **Apply** button, the success dialog box appears. Click on **Back** to return to Portal Page setting screen.

3-2-5-6 Advertisement

The system allow service provider to input 5 URL links for advertisement link purpose.

ADVERTISEMENT

Specify URLs for advertisements. Advertisements are displayed at the start of network access.

Frequency	☒ One Time Only ☐ Every 0 Min(s)
Sequence	☒ Randomly ☐ Orderly (From 1 to 10)
URL Link 1	URL : http://
URL Link 2	URL : http://
URL Link 3	URL : http://
URL Link 4	URL : http://
URL Link 5	URL : http://

[Apply](#)

Figure 3-2-46 Advertisement URL Link Setting Screen

Item	Default	Description
Frequency	One Time Only	One Time Only—One Time Only means to send the advertisement link once after the subscriber Login. Every~Min(s)—The field means to send the advertisement link every interval minutes. The value range is 1 to 60 (minutes).
Sequence	Randomly	Randomly—Display the advertisement page in the random order. From 1 to 10 —Display the advertisement page in the order as setting.
URL Link 1~5	Empty	This function allows the administrator to input ten different websites in the table for advertisement. And these 5 websites will display to the subscribers at random when the subscribers login in the WG-500P system. The input format can be "http://www.yahoo.com". The maximum character of the URL Link # is 200.

Click **Apply** button, the success dialog box appears. Click on **Back** to return to Advertisement URL Link setting screen.

3-2-5-7 Walled Garden

We prepare ten URL links that allows subscriber to access the specific Web pages even they didn't have a username or password. It's free trying and can use for advertisement.

WALLED GARDEN

Specify URLs that can be accessed without a username and password. These URLs are commonly used for advertisement or promotional purposes.

Link 1	Name:
	URL : http://
Link 2	Name:
	URL : http://
Link 3	Name:
	URL : http://
Link 4	Name:
	URL : http://
Link 5	Name:
	URL : http://

Apply

Figure 3-2-47 Walled Garden Setting Screen

Item	Description
Name	The name is allowed user to set the prompt string in user customize login page. The maximum allowed characters length is 80.
URL 1~5	The input format can be "http://www.yahoo.com". The maximum character of the Link# is 200.

Click **Apply** button, the success dialog box appears. Click on **Back** to return to Walled Garden setting screen.

3-2-5-8 DDNS

The DDNS service (Dynamic Domain Name Service), an IP Registry provides a public central database where information such as email addresses, host names, IP addresses etc. can be stored and retrieved. This solves the problems if your DNS server uses an IP associated with dynamic IP addresses. When the ISP assigns the WG-500P a new IP, the WG-500P must inform the DDNS server the change of this IP so that the server can update its IP-to-DNS entry. Once the IP-to-DNS table in the DDNS server is updated, the DNS name for your web server (i.e., xyz.dyndns.org) is still usable.

DDNS

Force to update every hour(s) when WAN IP address does not change.

No.	Active	Settings Update Status Now
01	☐	Status : N/A Service Provider dyndns.org (www.dyndns.org) Registered Host Name (Example: xyz.dyndns.org) Login Name (max. 23 characters) Password (max. 23 characters) Email Address (optional) ☐ Wildcards (optional)
02	☐	Status : N/A ☐ Wildcards (optional) Service Provider dyndns.org (www.dyndns.org) Registered Host Name (Example: xyz.dyndns.org) Login Name (max. 23 characters) Password (max. 23 characters) Email Address (optional) ☐ Wildcards (optional)
03	☐	Status : N/A Service Provider dyndns.org (www.dyndns.org) Registered Host Name (Example: xyz.dyndns.org) Login Name (max. 23 characters) Password (max. 23 characters) Email Address (optional) ☐ Wildcards (optional)

Apply

Figure 3-2-48 DDNS Setting Screen

90

Item	Default	Description
Force to update every~day(s) when WAN IP address keeps no change	1 day	Enter a number in the field to set the force update interval (in days).
No	01~03	The index number of a DDNS account.
Active	Disable	Click on check box, active or inactive the DDNS record.
Update Status Now	Click the Update Status Now button to do manual update.	
Settings	Enter the account information of DDNS Server.	
Status	YY/MM/DD HH:MM:SS	Display the update date, time and status. The Status area shows the update time and current state of the DDNS Client. N/A—DDNS Client service not installed. Update Successfully—DDNS Client service installed; service running. Update Fail—DDNS Client service installed; service not running.
Service Provider	Dyndns.org (www.dyndns.org)	Select a DDNS service provider by clicking in the list box. Note: Before configuring the DDNS settings, you have to register a dynamic domain at one of the dynamic domain service providers' list box.
Registered Host Name	Empty	Enter the host name of DDNS server. The maximum character of the registered host name is 100.
Login Name	Empty	Enter the user name of DDNS server.
Password	Empty	Enter the user password of DDNS server.
Email Address	Empty	Enter your email address. The DDNS Server will e-mail you important information once your Internet Name has been successfully registered.
Wildcards (optional)	Disable	Enable this function to be able to use *.mydomain.dyndns.org and not only mydomain.dyndns.org.

Click **Apply** button, the success dialog box appears. Click on Back to return to DDNS setting screen.

3-2-5-9 Wireless

WIRELESS

General Setting	Country: ETSI Channel: 6 802.11 Mode: 802.11n + 802.11g + 802.11b Channel Width: Auto 20/40 MHz																																																						
Multiple ESSID Setting	<table border="1"> <thead> <tr> <th>Item</th> <th>ESSID</th> <th>Security</th> <th>Status</th> <th>Auth Status</th> <th>Edit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Handlink_WG-500P</td> <td>WEP</td> <td>Active</td> <td>Built-in</td> <td> Edit </td> </tr> <tr> <td>2</td> <td>Handlink_WG-500P</td> <td>Open</td> <td>Inactive</td> <td>No Auth</td> <td> Edit </td> </tr> <tr> <td>3</td> <td>Handlink_WG-500P</td> <td>Open</td> <td>Inactive</td> <td>No Auth</td> <td> Edit </td> </tr> <tr> <td>4</td> <td>Handlink_WG-500P</td> <td>Open</td> <td>Inactive</td> <td>No Auth</td> <td> Edit </td> </tr> <tr> <td>5</td> <td>Handlink_WG-500P</td> <td>Open</td> <td>Inactive</td> <td>No Auth</td> <td> Edit </td> </tr> <tr> <td>6</td> <td>Handlink_WG-500P</td> <td>Open</td> <td>Inactive</td> <td>No Auth</td> <td> Edit </td> </tr> <tr> <td>7</td> <td>Handlink_WG-500P</td> <td>Open</td> <td>Inactive</td> <td>No Auth</td> <td> Edit </td> </tr> <tr> <td>8</td> <td>Handlink_WG-500P</td> <td>Open</td> <td>Inactive</td> <td>No Auth</td> <td> Edit </td> </tr> </tbody> </table>	Item	ESSID	Security	Status	Auth Status	Edit	1	Handlink_WG-500P	WEP	Active	Built-in	Edit	2	Handlink_WG-500P	Open	Inactive	No Auth	Edit	3	Handlink_WG-500P	Open	Inactive	No Auth	Edit	4	Handlink_WG-500P	Open	Inactive	No Auth	Edit	5	Handlink_WG-500P	Open	Inactive	No Auth	Edit	6	Handlink_WG-500P	Open	Inactive	No Auth	Edit	7	Handlink_WG-500P	Open	Inactive	No Auth	Edit	8	Handlink_WG-500P	Open	Inactive	No Auth	Edit
Item	ESSID	Security	Status	Auth Status	Edit																																																		
1	Handlink_WG-500P	WEP	Active	Built-in	Edit																																																		
2	Handlink_WG-500P	Open	Inactive	No Auth	Edit																																																		
3	Handlink_WG-500P	Open	Inactive	No Auth	Edit																																																		
4	Handlink_WG-500P	Open	Inactive	No Auth	Edit																																																		
5	Handlink_WG-500P	Open	Inactive	No Auth	Edit																																																		
6	Handlink_WG-500P	Open	Inactive	No Auth	Edit																																																		
7	Handlink_WG-500P	Open	Inactive	No Auth	Edit																																																		
8	Handlink_WG-500P	Open	Inactive	No Auth	Edit																																																		

Do not change the below settings unless you are aware of the possible results. Click **Default** to restore the factory default settings.

Beacon Interval	200 (msec, range:1~1000, default:200)
RTS Threshold	2342 (range:256~2342, default:2342)
Fragmentation Threshold	2346 (range:256~2346, default:2346, even numbers only)
Preamble Type	☐ Short Preamble ☒ Long Preamble ☐ Dynamic Preamble

Figure 3-2-49 Wireless Setting Screen

Item	Default	Description
General Settings		
Country	ETSI	Enter the Country for wireless connection.
Channel	6	Select the channel ID for wireless connection.
802.11 Mode	802. 11n + 802.11g + 802.11b	Enter the 802.11 Mode for wireless connection.
Channel Width	Auto 20/40 MHz	Select the Channel Width for wireless connection.
Multiple ESSID Setting	Click Edit button for each of 8 ESSID setting.	

Item	Default	Description
WIRELESS ESSID 1 CONFIGURATION		
General Settings	☒ Active ☐ Inactive ESSID: Handlink_WG-500P (Max=32) Broadcast: Enable	
Security Settings	☐ Open ☒ WEP Encryption: ☒ 64 bit ☐ 128bit Mode: HEX WEP Key: ☒ 1 1234567890 ☐ 2 0000000000 ☐ 3 0000000000 ☐ 4 0000000000 Note: You have to restart the system to apply the WEP settings. ☐ WPA ☒ WPA2 ☐ MixMode Group Key Rekeying: Per 86400 Seconds ☒ Use WPA or WPA2 with Pre-shared Key Pre-shared Key: 1234567890 (8~32 Characters) ☐ Use WPA or WPA2 with 802.1x RADIUS Server IP/Domain: Authentication Port: 1812 Shared Secret Key:	
Apply		

Figure 3-2-50 ESSID Setting Screen

General Settings		
ESSID status	Active (ESSID1)	ESSID1 is active, and others are inactive by default.
ESSID name	The ESSID's name by default is related to the last 4 numbers of WLAN MAC. If the WLAN MAC is "00-90-0E-00-12-34" , the default is "Handlink-1234_1". It is case sensitive and must not exceed 32 characters.	
Broadcast	Enable	This allows you to show or hide the ESSID name when users search the Wi-Fi signal.
Security Settings		
Security	Open	Select Open to allow wireless station to communicate with the device without any data encryption. Select WPA / WPA2 / MixMode for data encryption.
Group Key Re-Keying	86400 Seconds	Enter a number in the field to set the force re-keying interval.
Use WPA or WPA2 with Pre-shared Key	Disable	
Pre-Shared Key	Empty	Enter a pre-shared key from 8 to 63 case sensitive ASCII characters.
Use WPA or WPA2 with 802.1x	Disable	
RADIUS Server IP/Domain	Empty	Enter the RADIUS server IP address or domain

Item	Default	Description
		name. The maximum allowed characters length is 15.
Authentication Port	1812	Enter the authentication port number. The allowed numbers are from 0 to 65535.
Share Secret Key	Empty	Enter the RADIUS secret key
Beacon Interval	200	This value valid range is 1 to 1000 indicates the frequency interval of the beacon.
RTS Threshold	2347	This value valid range is 256-2342. This setting determines the packet size at which the WG-500P issues a request to send (RTS) before sending the packet. A low RTS Threshold setting can be useful in areas where many client devices are associating with the WG-500P, or in areas where the clients are far apart and can detect only the WG-500P and not each other.
Fragmentation Threshold	2432	This setting determines the size at which packets are fragmented. Enter a setting ranging from 256 to 2432 bytes. Use a low setting in areas where communication is poor or where there is a great deal of radio interference.
Preamble Type	Long Preamble	The preamble type is a section of data at the head of a packet that contains information the WG-500P and client devices need when sending and receiving packets. The setting menu allows you to select a long, short or dynamic preamble type.

Click **Apply** button, the restart dialog box appears. Click on **Apply** to restart the system.

Click **Default** button to load the default manufacturer configuration to the system. All this page (Wireless) configuration setup will be replaced by default settings.

3-2-5-10 USB

The WG-500P plugged in a USB to Ethernet adapter can expand the WG-500P Wi-Fi signal range. The administrator can connect WG-500P USB port to another AP/router Ethernet port with a USB 2.0 to RJ45 Ethernet network adapter. After the activation, the administrator can change the ESSID.

USB

USB TO ETHERNET	Network Application Mapping to SSID Handlink-D348_1
Apply	

Figure 3-2-51 USB Setting Screen

3-3 System Status

Display WG-500P system basic status, including,

1. System
2. Account List
3. Account Log
4. Current User
5. DHCP Clients
6. Session List

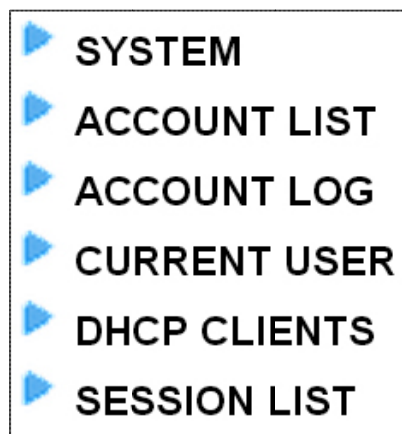


Figure 3-3-1 System Status Item Screen

3-3-1 System

The System Information Menu displays current system basic information including the service connection message, host name, LAN, WAN, DHCP Configuration, DNS, E-mail Redirection, SSL Certificate, network traffic Information and the system firmware version number.

SYSTEM Display the detailed system information OK

Service	Internet Connection	OK
	Wireless Service	OK
System	System Name	
	Firmware Version	1.00.00.205
	Wireless Version	2.7.1.5
	Bootrom Version	1.00.00.001
	Controller Firmware Version	1.00.00.001
	WAN MAC Address	00:0C:29:00:00:00
	LAN MAC Address	00:0C:29:00:00:00
	System Time	2013/10/30 08:14:22
	System Up Time	000:02:03M:24S
LAN IP	IP Address	192.168.1.1
	Subnet Mask	255.255.255.0
WAN IP	WAN Port Mode	Static IP
	IP Address	192.168.1.1
	Subnet Mask	255.255.255.0
	Gateway IP Address	192.168.1.1
DNS	Primary DNS Server	168.95.1.1
	Secondary DNS Server	
DHCP	DHCP Status	Server
	Start IP Address	192.168.1.1
	End IP Address	192.168.1.254
	Lease Time	300
Wireless	Channel	6
	ESSID 1	Hardlink_WG-500P
	ESSID 2	
	ESSID 3	
	ESSID 4	
	ESSID 5	
	ESSID 6	
	ESSID 7	
	ESSID 8	
E-Mail Redirection		
Network Traffic		
	WAN Traffic	Tx Data: 20923 Rx Data: 2561552 Tx Error: 0 Rx Error: 0
	ESSID 1 Traffic	Tx Data: 2199323 Rx Data: 1520733 Tx Error: 0 Rx Error: 0
	ESSID 2 Traffic	Tx Data: 0 Rx Data: 0 Tx Error: 0 Rx Error: 0
	ESSID 3 Traffic	Tx Data: 0 Rx Data: 0 Tx Error: 0 Rx Error: 0
	ESSID 4 Traffic	Tx Data: 0 Rx Data: 0 Tx Error: 0 Rx Error: 0
	ESSID 5 Traffic	Tx Data: 0 Rx Data: 0 Tx Error: 0 Rx Error: 0
	ESSID 6 Traffic	Tx Data: 0 Rx Data: 0 Tx Error: 0 Rx Error: 0
	ESSID 7 Traffic	Tx Data: 0 Rx Data: 0 Tx Error: 0 Rx Error: 0
	ESSID 8 Traffic	Tx Data: 0 Rx Data: 0 Tx Error: 0 Rx Error: 0
Location Information		
	Location	
	Address	
	City	
	State	
	Zip	
	Country	
	Contact Name	
	Contact Telephone	
	Contact FAX	
	Contact Email	
SSL Certificate		
	Country	00
	State	Local State
	Local City	Local City
	Organization	Local Group
	Organization Unit	Local Host
	Common Name	1.1.1.1
	Email Address	mail@1.1.1.1

Figure 3-3-2 System Status Screen

3-3-2 Account List

You can display a list of all the account information on this device. This table includes the username, password, usage time, time created, login time, expiration time and status.

ACCOUNT LIST

List existing accounts.

refresh

S/N	Status	Username	Usage Time	Time Created	Login Time	Time left	Delete
00001	Finished	ca12vc23	00:30:00	05/06/2013 08:21:25	05/06/2013 08:29:55	00:30:00	☐
00001	Un-Used	vc2312ac	01:00:00	05/06/2013 08:21:25		01:00:00	☐

GO
1
PAGE

Delete
Delete ALL
First
Previous
Next
End

Figure 3-3-3 Account List

Click **refresh** button to update the account list page.

Click the column button (S/N, Status, Username, ...,etc.) to sort the column in ascending/descending order.

Select the check boxes and click **Delete** to delete the accounts.

Click **Delete ALL** button to delete all accounts in account list.

Note: This page will refresh automatically every 5 minutes.

3-3-3 Account Log

The account log shows the accounts' log information.

ACCOUNT LOG

List log of accounts:
Export
Clear Log
refresh

S/N	Username	Time Created	Login Time	Usage Time	Charge	Payment Info	Status
000013	wzc5	2013-05-09 14:35:36		01:00:00	2	Cash	Expired
000014	byha	2013-05-09 15:55:30		01:00:00	2	Cash	Delete
000015	63nv	2013-05-10 10:23:09		00:30:00	1	Credit Card	Un-Used
000016	pxvd	2013-05-10 10:23:13		01:00:00	2	Cash	Expired

GO
1 PAGE

First
Previous
Next
End

Figure 3-3-4 Account Log

Click **Export** to export the account logs to a text file format. (export.log)

Click **Clear Log** button to remove all account log entries.

Click **refresh** button to update the account log page.

Click the column button (S/N, Username, Time Created, ...,etc.) to sort the column in ascending/descending order.

3-3-4 Current User

Display the current logged-in subscribers' status. It allow service provider to disconnect any subscribers.

CURRENT USERS

[refresh](#)

No.	Interface	Type	Username	IP Address	MAC Address	Session	Delete
1.	Ethernet	Dynamic	8868gvqx	10.59.1.2	00:0C:6E:58:33:CF	10	☐
2	ESSID 1	Dynamic	ld93k5j7	10.59.1.3	00:90:8E:58:33:CF	100	☐
3	ESSID 2	No-Auth	-	10.59.1.4	00:90:8E:58:83:C1	58	☐
4	ESSID 3	No-Auth	-	10.59.1.5	00:90:8E:AC:FF:C1	100	☐
5	ESSID 4	No-Auth	-	10.59.1.6	00:AC:8E:EC:FF:C1	100	☐
6	ESSID 1	Super	Super	10.59.1.12	00:90:9F:58:83:C1	100	☐

GO 1 PAGE

[Delete](#)
[Delete ALL](#)

[First](#)
[Previous](#)
[Next](#)
[End](#)

Figure 3-3-5 Current User List

Click **refresh** button to update the current user list page.

Click the column button (Interface, Type, Username, IP Address, ..., etc.) to sort the column in ascending/descending order.

Select the check boxes and click '**Delete**' to delete accounts.

Click **Delete ALL** to delete all accounts in current user list.

3-3-5 DHCP Clients

The DHCP client table shows the current DHCP users on the LAN.

DHCP CLIENTS

DHCP Client Information

☐ Refresh DHCP Client information every minutes. (1~60 minute)

No.	MAC Address	IP Address
-----	-------------	------------

Figure 3-3-6 Current User Screen

3-3-6 Session List

The remote site administrator could monitor the real time usage status of WG-500P via this page.

SESSION LIST

List sessions of Network events: Incoming and outgoing packet information, including source IP address, destination IP address, and port number.

☐ Refresh session list every minutes. (1~60 minute)

No.	TCP/UDP	Client IP	Client Port	Translated Port	Remote IP	Remote Port	Idle
-----	---------	-----------	-------------	-----------------	-----------	-------------	------

GO

1

PAGE

First

Previous

Next

End

Figure 3-3-7 Session List Screen

3-4 System Tools

This allows service provider or administrator to process Firmware upgrade, change password and backup or restore configuration.

1. Configuration
2. Firmware
3. Boot Code
4. Controller Board Firmware
5. System Account
6. SSL Certificate
7. Ping Command
8. Restart
9. Logout



Figure 3-4-1 System Tools Item

3-4-1 Configuration

Use the Configuration item to save, restore or reset configuration parameters of the WG-500P.

CONFIGURATION

Backup the system configuration from this device to your PC or restore your stored system configuration to this device.

Backup	Click Backup to backup the system configuration from this device to your computer or to the remote TFTP server. Remote TFTP Server IP Address : File Name :
Restore	To restore your stored system configuration to this device.. Local PC File Path : Select... Remote TFTP Server IP Address : File Name :
Reset the system back to factory defaults	☐ Keep subscriber profile

Figure 3-4-2 Configuration Setting Screen

Item	Default	Description
Backup		Click it to save the system configuration to your computer. (export.cfg)
Remote TFTP Server IP Address	Empty	Enter the IP address of TFTP Server.
File Name	Empty	Enter the file name in the File Name field.
Restore		Click it to restore your system configuration.
Local PC File Path	Empty	Enter the file pathname of the system configuration file in the Local PC File Path field.
Remote TFTP Server IP Address	Empty	Enter the IP address of TFTP Server.
File Name	Empty	Enter the file name in the File Name field.
Reset the system back to factory defaults		Erase all setting and back to factory setting.
Keep subscriber profile	Disable	Click the keep subscriber profile to change all the parameters into factory setting but still reserve the subscriber profiles.

3-4-2 Firmware Upgrade

The Firmware Upgrade menu loads updated firmware to be permanent in flash ROM. The download file should be a binary file from factory; otherwise the agent will not accept it. After downloading the new firmware, the agent will automatically restart it.

Manual Firmware Upgrade

FIRMWARE

Manual Firmware Upgrade Scheduled Firmware Upgrade Firmware Upgrade Notice Setting

To upgrade the firmware, click **Browse** to locate the firmware file or use remote TFTP server and click **Apply**.

Local PC File Path :

Remote TFTP Server IP Address :

File Name :

Figure 3-4-3 Manual Firmware Upgrade Setting Screen

Item	Default	Description
This allow administrator to upgrade the firmware via HTTP.		
Local PC File Path	Empty	Enter the file name and location in the Local PC File Path field.
This allows administrator use TFTP server to upgrade firmware.		
Remote TFTP Server IP Address	Empty	Enter the IP address of TFTP Server.
File Name	Empty	Enter the file name in the File Name field.

Note:

1. Before downloading the new firmware, users must save the configuration file for restore configuration parameters of the device.
2. Do not turn the power off during the upgrade process. This will damage the unit.

Scheduled Firmware Upgrade

Scheduled Firmware Upgrade is a program that enables an automatic upgrade to the latest firmware version through the TFTP server.

FIRMWARE

Manual Firmware UpgradeScheduled Firmware UpgradeFirmware Upgrade Notice Setting

This feature allows you to upgrade the system firmware on a regular (hourly / daily / weekly) basis automatically.

☒ Disable ☒ Enable

TFTP Server IP	
File Synchronization	View Sample File
Frequency	☒ Weekly ☐ Daily ☐ Hourly Sunday 00 Hour 00 Min.

Apply

Figure 3-4-4 Scheduled Firmware Upgrade Setting Screen

Item	Default	Description
Disable/Enable		Disables or enables the scheduled firmware upgrade function.
TFTP Server IP	Empty	Enter the IP address of TFTP Server.
File Synchronization	Empty	Enter the file name and location in the File Synchronization field.
View Sample File		Click the button to display synchronization file example.
Synchronization Check File Sample Code Version= v1.00.00.b06 Filename=WG-500P-1.00.00.b06.bin Close Figure 3-4-5 Synchronization File Sample Code		
Frequency	Weekly	Set the firmware upgrade time. The default value is "Weekly".

Note: Do not turn the power off during the upgrade process. This will damage the unit.

Firmware Upgrade Notice Setting

If you would like to receive the information about firmware upgrade, please activate it and leave your email. You should enable **“Agree that Handlink will be able to contact me if there is new firmware version release.”** before filling in the email address.

FIRMWARE

Manual Firmware Upgrade	Scheduled Firmware Upgrade	Firmware Upgrade Notice Setting									
To provide a better service, Handlink will inform you the new firmware version release, if you click "Agree" and leave your E-mail. But if you don't click "Agree" or your E-mail is wrong, you will not receipt it.											
<table border="1"> <tr> <td>☐</td> <td colspan="2">Agree that Handlink will be able to contact me if there is new firmware version release.</td> </tr> <tr> <td>Email :</td> <td colspan="2"> </td> </tr> <tr> <td>Reconfirm your mail :</td> <td colspan="2"> </td> </tr> </table>			☐	Agree that Handlink will be able to contact me if there is new firmware version release.		Email :			Reconfirm your mail :		
☐	Agree that Handlink will be able to contact me if there is new firmware version release.										
Email :											
Reconfirm your mail :											
Apply											

Item	Default	Description
Email	Empty	Enter the email address for firmware upgrade information.
Reconfirm your mail	Empty	Re-enter the email address.

3-4-3 Boot Code

BOOT CODE

To upgrade the Boot Code, click Select to locate the file and click Apply .	
Local PC File Path :	Select...
Apply	

Figure 3-4-6 Boot Code Upgrade Setting Screen

3-4-4 Controller Board Firmware

Controller Board Firmware

To upgrade the Controller Board Firmware, click Select to locate the file and click Apply .	
Local PC File Path :	Select...
Apply	

Figure 3-4-7 Controller Board Firmware Upgrade Setting Screen

3-4-5 System Account

Use the System Account screen to change the system accounts.

SYSTEM ACCOUNT

Administrator Account	
Administrator can fully control this system and modify all settings.	
Username :	admin
Password :	*****
Confirm :	
Idle Time Out	5 Min(s) (1~1440)
Web-based Accounting Manager	
Web-based accounting manager can operate the proprietary web-based accounting system.	
Username :	account
Password :	*****
Confirm :	
Idle Time Out	15 Min(s) (1~1440)
Supervisor Account	
Supervisor can only view system status and change password.	
Username :	supervisor
Password :	*****
Confirm :	
Super Subscriber Account	
Super subscriber is a built-in subscriber account for system test or premium usage.	
Super Subscriber	Disable
Idle Time Out	5 Min(s) (1~1440)
Username :	super
Password :	*****
Confirm :	

[Apply](#)

Figure 3-4-8 System Account Setting Screen

Item	Description
Username	The username can consist of up to 20 alphanumeric characters and is sensitive.
Password	The password can consist of up to 20 alphanumeric characters and is sensitive.
Confirm	The password for confirmation
Super Subscriber	Disables or enables the super account function.
Idle Time Out	The user idle time out valid is 1 to 1440 minutes. If the idle time out is set as 5 minutes, it means if the account doesn't send packet in 5 minutes, the account will logout automatically.

Administrator Account

Step 1: Start your Web browser and enter the factory default IP address **10.59.1.1** in your browser's location box. Press Enter.

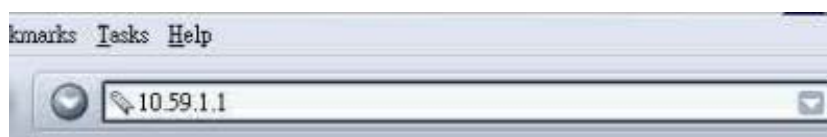


Figure 3-4-9 Web Browser Location Field (Factory Default)

Step 2: The WG-500P configuration main menu will appear. Enter **admin** as the Username and **admin** as the password and click **Login**. If you are first time setting the system, the wizard setup screen will appear.

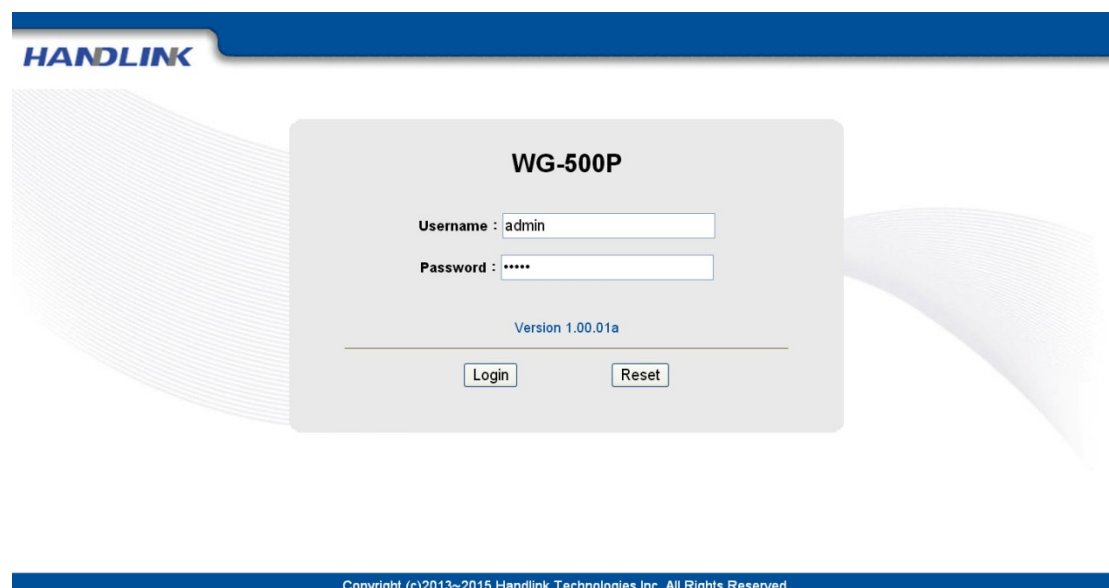


Figure 3-4-10 Administrator Account Login Screen (First Time)

Web-Based Accounting Manager

Step 1: Start your Web browser and enter the factory default IP address **10.59.1.1** in your browser's location box. Press Enter.



Figure 3-4-11 Web Browser Location Field (Factory Default)

Step 2: The WG-500P configuration main menu will appear. Enter **account** as the Username and **account** as the password and click **Login**.

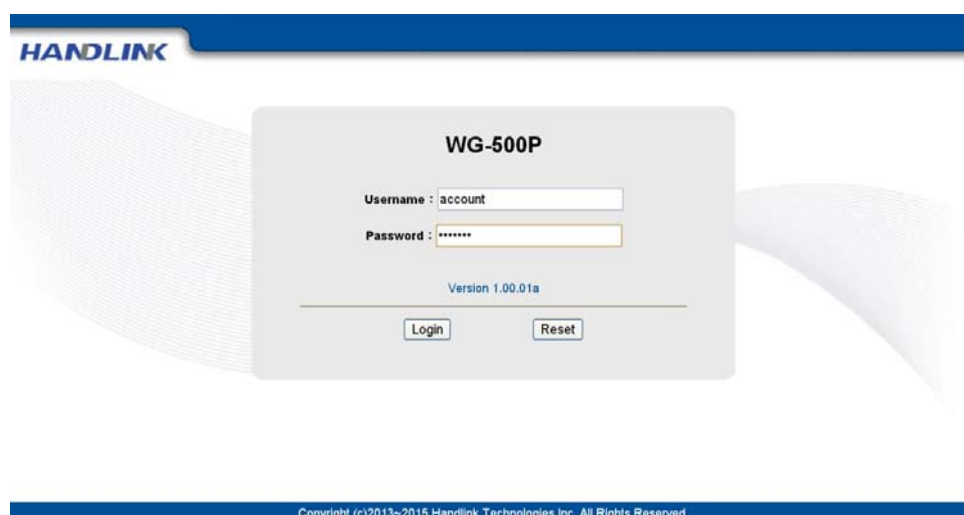


Figure 3-4-12 Web-Based Accounting Manager Login Screen

Supervisor Account

Step 1: Start your Web browser and enter the factory default IP address **10.59.1.1** in your browser's location box. Press Enter.

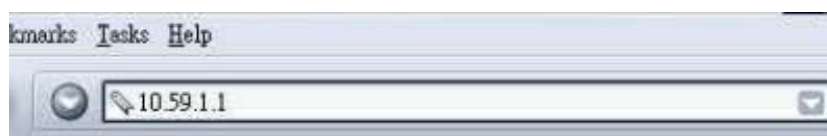
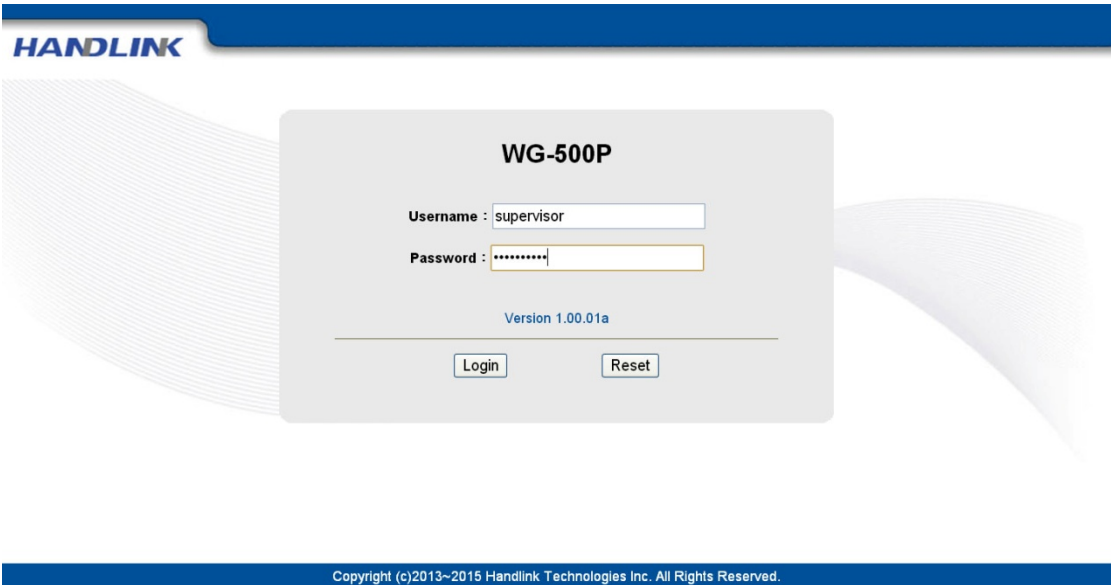


Figure 3-4-13 Web Browser Location Field (Factory Default)

Step 2: The WG-500P configuration main menu will appear. Enter **supervisor** as the Username and **supervisor** as the password and click **Login**.



The image shows the WG-500P configuration main menu. At the top, there is a blue header with the "HANDLINK" logo. Below the header, the title "WG-500P" is centered. Underneath the title, there are two input fields: "Username :" with the value "supervisor" and "Password :" with a masked password "*****". Below the password field, the text "Version 1.00.01a" is displayed. At the bottom of the form, there are two buttons: "Login" and "Reset". The entire form is set against a light gray background with a subtle wave pattern on the left and right sides. At the very bottom, a blue footer contains the copyright notice: "Copyright (c)2013~2015 Handlink Technologies Inc. All Rights Reserved."

Figure 3-4-14 Supervisor Account Login Screen

Step 3: After a valid user name and password have been provided, the WG-500P configuration homepage will appear. "WIZARD SETUP" and "ADVANCED SETUP" are disabled.

Super Subscriber Account

Start your Web Browser; a subscriber login page will appear. Enter **super** as the Username and **super** as the password and click **Enter**, you can use Internet now.

The image shows a web interface for a subscriber login. At the top, there is a blue header with the word "Welcome" in black. Below this is a light gray section with the text "Hot Spot Internet Service" in black. The main area is white and contains a login form. The form has two rows: "Username:" with a text input field containing "super", and "Password:" with a text input field containing seven black dots. Below the form are two buttons: "Enter" and "Cancel".

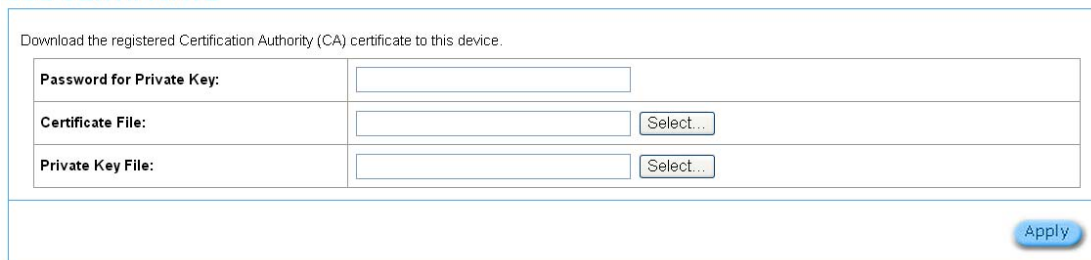
Welcome	
Hot Spot Internet Service	
Username:	super
Password:	•••••••
Enter Cancel	

Figure 3-4-15 Subscriber Login Page

3-4-6 SSL Certificate

The function allows you to download the registered CA certificate into the WG-500P.

SSL CERTIFICATE

The image shows a web interface for downloading an SSL certificate. At the top, there is a blue header with the text "SSL CERTIFICATE" in white. Below this is a light gray section with the text "Download the registered Certification Authority (CA) certificate to this device." in black. The main area is white and contains a form with three rows: "Password for Private Key:" with a text input field, "Certificate File:" with a text input field and a "Select..." button, and "Private Key File:" with a text input field and a "Select..." button. At the bottom right of the form is a blue button with the text "Apply".

SSL CERTIFICATE	
Download the registered Certification Authority (CA) certificate to this device.	
Password for Private Key:	
Certificate File:	<input <="" td="" type="button" value="Select..."/>
Private Key File:	<input <="" td="" type="button" value="Select..."/>
Apply	

Figure 3-4-16 SSL Certificate Download Setting Screen

Note: The password field must be the same as the CA's registered password.

3-4-7 Ping Command

The Ping function can check the WG-500P networking connective or not.

PING

Execute a ping command to test the availability of a remote system. Enter an IP address.

Figure 3-4-17 Ping Command Screen

Item	Description
IP or URL	Enter the IP address or the URL link.

3-4-8 Restart

If your WG-500P is not operating correctly, you can choose this option to display the restart WG-500P screen. Clicking the apply button restart the WG-500P, with all of your settings remaining intact.

RESTART

Click **Apply** to restart the system. If you do not wish to restart the system, choose a menu option to leave this page.

Figure 3-4-18 Restart Screen

3-4-9 Logout

If you would like to leave the configuration page, please click apply to exit.

LOGOUT

Click **Apply** to log out. If you do not wish to log out, choose a menu option to leave this page.

Figure 3-4-19 Logout Screen

4 QR Code Service

4-1 QR code setting

Please find **Advance setting > Customization > Account Printout > QR code**. If you don't print out the QR Code on the ticket, please disable it and click **Apply** button.

CUSTOMIZATION Step 1

[Login Page](#)
[Loge](#)
[Information Window](#)
[Account Printout](#)
[Credit Card](#)
[User Agreement Page](#)

☒ Title:	* Format 1: Welcome! (Max=75) Welcome! * Format 2: (Max=75)
☒ Subtitle:	* Format 1: WG-500P (Max=60) WG-500P * Format 2: (Max=60)
Username:	Username: (Max=24)
Password:	Password: (Max=24)
☒ Billing Method:	Billing: (Max=24) Time to Finish: (Max=24) Accumulation: (Max=24)
☒ Billing Profile:	Service: (Max=24)
☒ Purchase Unit:	Unit: (Max=24)
☒ Usage Time:	Usage Time: (Max=24)
☒ Price:	Total: (Max=24)
☒ Tax:	Tax: (Max=24) TOTAL: Total: (Max=24)
ESSID:	ESSID: (Max=24)
☒ Wireless Security:	WPA: (Max=24) WPA2: (Max=24) MixMode: (Max=24)
☒ Additional Label 1:	(Max=24) Value: (Max=24)
☒ Additional Label 2:	(Max=24) Value: (Max=24)
☒ Print out Time:	Format: yyyy/mm/dd HH:mm:ss (HH:24h MM:0h SS:AMPM)
☒ Expiration Time:	Activate: your account before: (Max=24x3) Format: yyyy/mm/dd HH:mm:ss (HH:24h MM:0h SS:AMPM) Description: Please finish your usage time within 3 months after your last login. Accumulation: (Max=24x4)
☒ Ending:	Thank you! (Max=24x10)
☒ QR Code:	Printout the QR Code.

Preview of account generator printer output

Step 3: Click Apply

Apply

Figure 4-1-1 QR Coding Setting Screen

4-2 Additional information for QR code use

If you will activate QR code service for Apple iOS 6 device and later,

1. Please find **Advance setting > Security > Pass Through**.
2. Choose "Enable".
3. Add **www.apple.com** into PASS THROUGH list in WG-500P because iOS6 device and later is required.
4. Click **Add to List** button.
5. Choose Active on the **Pass Through List**.

For certain QR code Apps, please add **go.redirectingat.com**, **54.225.129.12** and **23.23.152.51 (for APP ScanLife)** and follow the above steps.

PASS THROUGH Step 1

Pass Through: **Enable** Step 2: Choose Enable

Pass Through Destination allows the subscribers to access specified Internet websites without authentication, which is useful to promote selected services. Pass Through Subscriber is useful for VIP users without authentication. Pass Through LAN device is also useful for devices that do not have a web browser (cash registers, for example) or that are connected with LAN port (wireless access points, for example).

Please enter new pass through for destination (up to 20 entries)

☒ URL or Website: **www.apple.com** Step 3: Add "www.apple.com"

☐ Start / End IP Address: ~

Please enter new pass through for subscribers or LAN devices (up to 20 entries)

☐ Start / End IP Address: ~

☐ IP Address: Subnet Mask:

☐ MAC Address: Mask: FF-FF-FF-FF-FF-FF

Description (max 20 characters)

Add to List Step 4: Click Add to List

Pass Through List

No.	Active	Address List	Type	Description	Delete
1	☒ Step 5: Choose Active	www.apple.com	Destination		☐

Delete All

Apply

Figure 4-2-1 Pass Through Setting Screen

4-3 Use QR code to access the Internet

Please follow the steps to access the Internet for clients.

1. Print out the Ticket. You can find the ESSID and WPA/WPA2 printed on the ticket.



Figure 4-3-1 QR Coding Ticket

2. Connect to the **ESSID**(ex: Handlink_WG-500P), input **WPA/WPA2** password(ex: 1234567890).

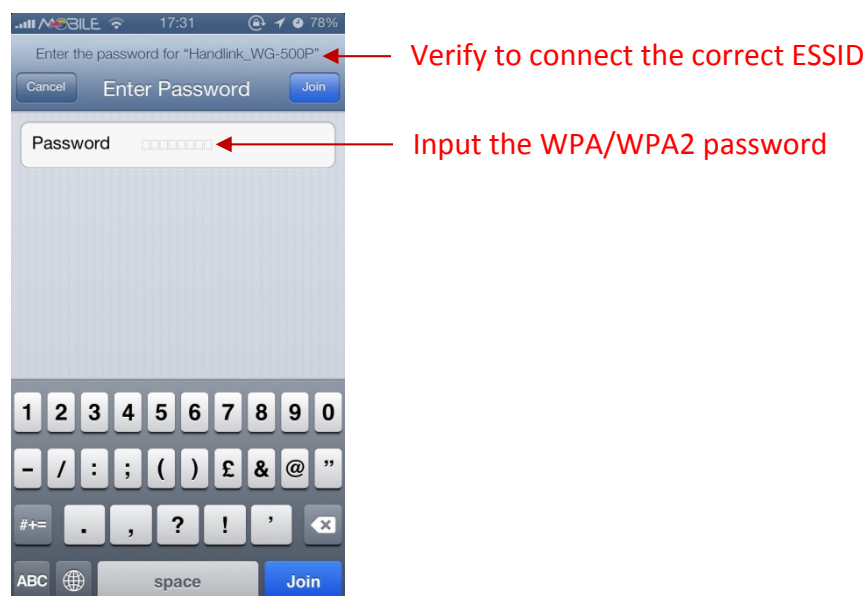


Figure 4-3-2 Password Input Screen

3. Open up QR code APP and Scan.



Figure 4-3-3 Scan 1 Screen

4. Some Apps may require user to click "Go to URL".

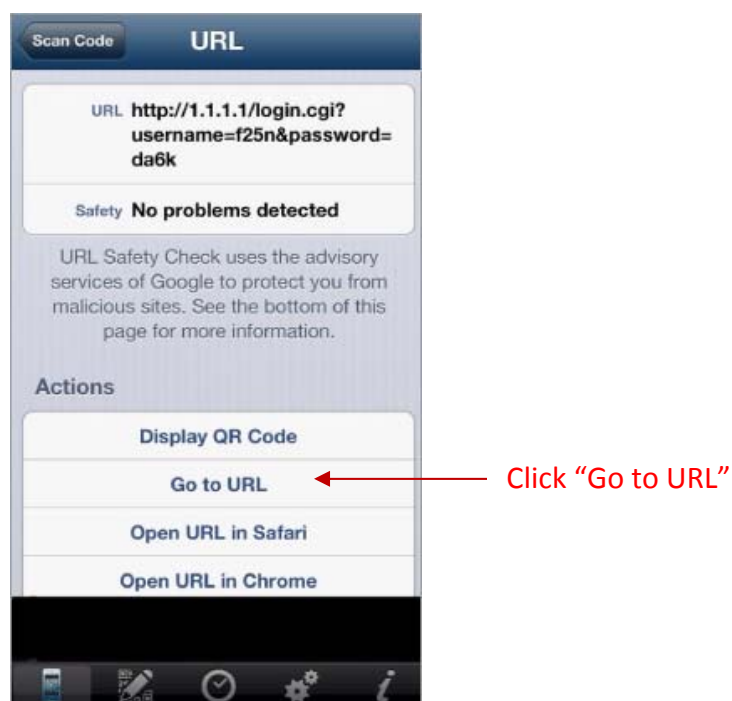


Figure 4-3-4 Scan 2 Screen

5. Client can use the Internet now.

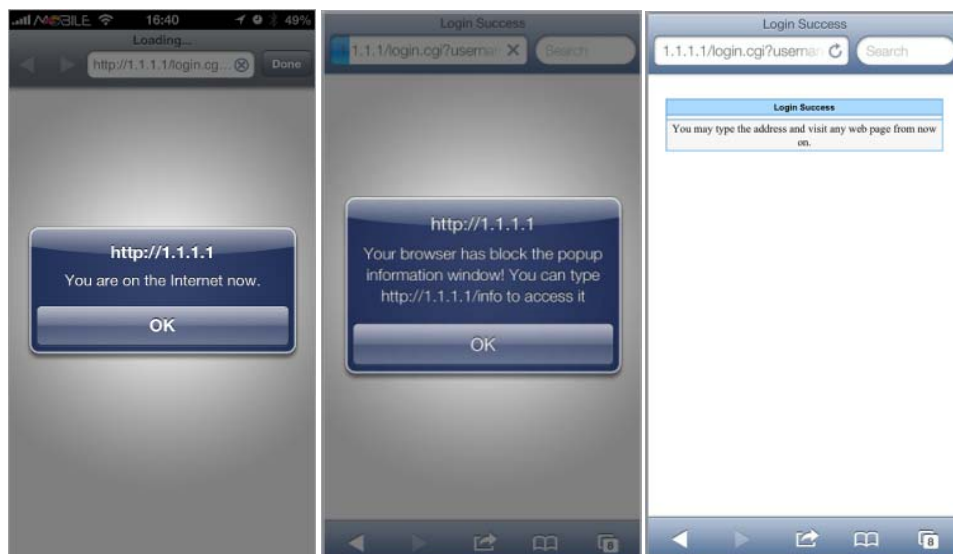


Figure 4-3-5 Scan Finish Screen

5 Personal ID Recognition

Some countries or areas would ask users to show their personal identification when accessing Wi-Fi service according to laws for the cybercrime investigation.

WG-500P provides the function Personal Identification Recognition. **The default is disabled.** Subscribers need to activate it by the following steps.

5-1 Personal ID Recognition Setting

Step1. Active the function: Go to **Advanced Setup** -> **Authentication** -> **Authentication**. **Enable** the **Personal ID Recognition Mode**. Please refer to Chapter 3-2-1-1 Authentication.

AUTHENTICATION

Authentication Type	☐ No Authentication ☒ Built-in Authentication Personal ID Recognition Mode : ☒ Enable ☐ Disable ☐ User Agreement ☐ Redirect URL Link http:// Code ☒ Standard User Agreement Page * Authentication default setting would be mapping To ESSID 1.
Current User Information Backup	1 Min(s) (1 - 1440)
SSL Login Page	☒ Disable ☐ Enable
User Idle Time Out	5 Min(s) (1 - 1440) (Not function on "Time to Finish" billing mode)
Apply	

Figure 5-1-1 System Setting

Step2. The FIRST billing profile you activate is the Personal ID Recognition selection.

There is ONLY ONE billing profile in the Personal ID Recognition mode.

Please refer to **Chapter 3-2-2-1 Billing** to modify your first billing profile.

BILLING

*** Pre-Paid**
The subscribers can access Internet with pre-defined usage time.
☐ Enable Credit Card Service WG-500P

*** Time to Finish**
The subscriber can access Internet only one time with one account. Once subscriber login, the pre-defined usage time will start until run out even the subscriber stop to access the Internet before run out.

*** Accumulation**
The subscriber can access Internet several times with one account. The system can keep and accumulate every single usage time until the pre-defined usage time run out.

Billing Profile

Currency: ☐ \$ ☐ ¥ Number of decimals places:

☐ Tax Percentage: %

No.	Active	Name (max 12 characters)	Account Usage Time	Charge
01	☒	30 minutes	30 minutes	1.00
02	☒	1 hour	1 hours	2.00
03	☒	2 hours	2 hours	3.00
04	☐	3 hours	3 hours	4.00
05	☐	5 hours	5 hours	5.00
06	☐	10 hours	10 hours	6.00
07	☐	1 day	1 days	10.00
08	☐	2 days	2 days	20.00
09	☐	7 days	7 days	50.00
10	☐	30 days	30 days	200.00

Figure 5-1-2 Billing Setting Screen

Step 3: Start your browser, and then enter the factory default IP address **10.59.1.1** in your browser's location box. Press **Enter**.

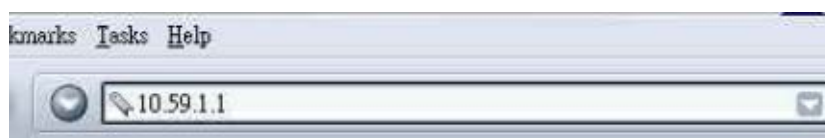


Figure 5-1-3 Web Browser Location Field (Factory Default)

Step 4: The WG-500P configuration tools menu will appear. In the Username and Password field, type the factory default user name “**account**” and password “**account**” and click **Login**.

The image shows a web-based configuration interface for the WG-500P. At the top, it says "WG-500P". Below that, there are two input fields: "Username :" and "Password :". Underneath the password field, it says "Version 1.00.01a". At the bottom, there are two buttons: "Login" and "Reset".

Figure 5-1-4 Configuration Tools Menu

Step 5: ONLY account manager can operate PIR and printout the ticket. There are 3 types for the account manager to choose, including Driver License NO., Passport No. and Identify card No. Fill in numbers and click “+” or “-” for usage time.

Click the **Print** button to printout the ticket.

Click **View Account List** to see all accounts which are printed out.

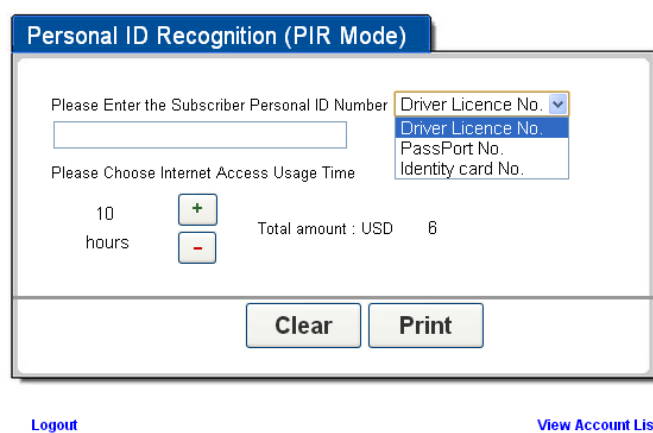
The image shows a web-based interface for "Personal ID Recognition (PIR Mode)". It has a title bar with the text "Personal ID Recognition (PIR Mode)". Below the title bar, there are two sections. The first section is labeled "Please Enter the Subscriber Personal ID Number" and has a text input field. The second section is labeled "Please Choose Internet Access Usage Time" and has a dropdown menu with three options: "Driver Licence No.", "PassPort No.", and "Identity card No.". Below the dropdown menu, there are two buttons: "+" and "-". To the left of these buttons, it says "10 hours". To the right of the buttons, it says "Total amount : USD 6". At the bottom of the interface, there are two buttons: "Clear" and "Print". Below the interface, there are two links: "Logout" and "View Account List".

Figure 5-1-5 PIR

WG-500P & WG-500P M Hotspot in a Printer



Figure 5-1-6 PIR Ticket

Step 6: Click **Logout** and then click the **Apply** button to finish it.

LOGOUT

Do you want to log out from the web configurator?	
Apply	

Figure 5-1-7 Logout

6 MikroTik Compatible Account Printer

Handlink WG-500P M can be a pure printer to support MikroTik Router OS. If you have purchased any MikroTik Router OS gateway, you can connect WG-500P M to print out the dynamic account and password for Internet access.

There are 2 types used to access the Internet : one is **Ethernet to MikroTik RouterOS**: WG-500P M can be used as a pure wireless access point; another is **Wireless to MikroTik RouterOS**: WG-500P M can be used as a Wireless client.

The WG-500P M supports Mikrotik RouterOS 5.x, 6.x and the later version now.

6-1 WG-500P M Software Specifications

Networking

- IEEE802.3 10BaseT Ethernet
- IEEE802.3u 100BaseTX Fast Ethernet
- Static IP WAN Client

Wireless

- IEEE802.11n/b/g Client

User Authentication

- Web-based Login Page Authentication

6-2 Getting start

If you have a WG-500P, you would like to upgrade to WG-500P M first. (If not, please directly go to **Step 1.**)

1. Please find **System tool - Firmware - Manual firmware upgrade**, upload the **WG-500P M** firmware, and wait for the device rebooting.
2. After **WG-500P M** reboots, you should use a pin to push the reset button to perform a hardware-reset for resetting the configuration.

Step 1: WG-500P M Connection

1. Set up your PC with static IP: 169.254.1.2 and subnet mask: 255.255.0.0.
2. Connect this PC and the WAN port of WG-500P M directly with an Ethernet cable.

Step 2: Start your browser, and then enter the factory default IP address 169.254.1.250 in your browser's location box. Press **Enter**.

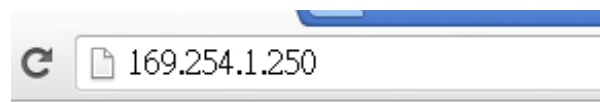


Figure 6-2-1 Web Browser Location Field (Factory Default)

Step 3: The WG-500P M configuration tools menu will appear. In the Username and Password field, type the factory default user name **admin** and password **admin** and click **Login**. And then, you will see the SYSTEM STATUS.



Figure 6-2-2 Configuration Tools Menu

Step 4: In this mode, WG-500P M can be used as Wireless AP for Internet access.

Please find **Interface setting - Ethernet to MikroTik RouterOS - Uplink setting**. It's recommended to set up static IP address on WG-500P M for MikroTik RouterOS setting.

Here we take the default LAN address of MikroTik RouterOS 192.168.88.0/ 24 as example. Set up a static IP address 192.168.88.251 for WG-500P M.

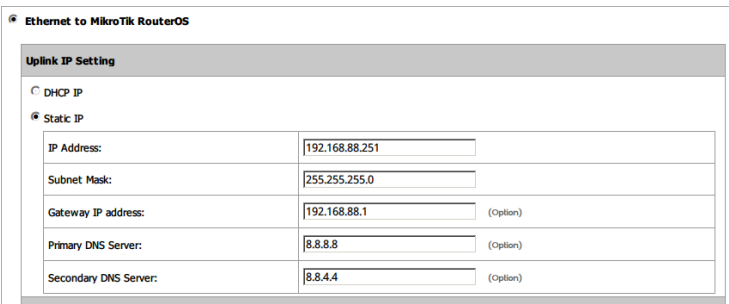


Figure 6-2-3 Ethernet to MikroTik RouterOS Setting Screen

Here you can configure the **SSID**, **Channel**, and **Security**. You could refer to Chapter 6-3-1-2 **Wireless AP Mode Setting**.

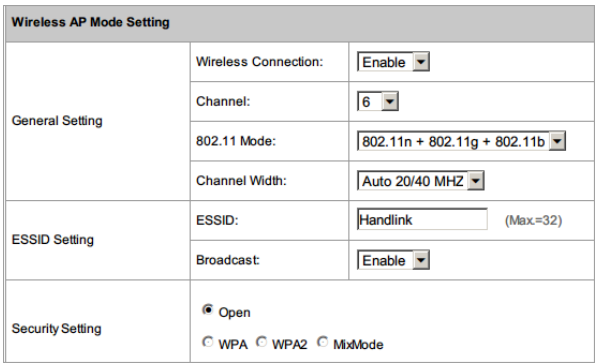


Figure 6-2-4 Wireless AP Mode Setting Screen

Step 5: In this mode, WG-500P M acts as a wireless client. Another AP for a wireless connection is essential.

Connect WG-500P to the LAN network of MikroTik RouterOS. **Wireless to MikroTik RouterOS** is needed to use Management IP (169.254.1.250) to configure. Please refer to **Step1~3**.

Please find **Interface setting - Wireless to MikroTik RouterOS**. Click **AP SCAN** button in search of SSID.

INTERFACE SETTING

☐ Ethernet to MikroTik RouterOS

☒ Wireless to MikroTik RouterOS

ESSID	Handlink	AP SCAN
AP MAC (optional)		
Pre-shared Key	1234567890	
IP Setting	☒ DHCP IP ☐ Static IP	

Apply

Figure 6-2-5 Interface Setting Screen

Please select one of all SSIDs.

AP SCAN RESULT						
refresh						
SSID	MAC ID	Channel	RSSI	Encryption	802.11 mode	Select
nwa-shaw	00:90:0e:02:3a:08	1	-54dbm	TKIPAES	802.11b/g/	☐
SW3_KIOSK	00:1d:92:c0:14:04	1	-56dbm	TKIP	802.11b/g/	☐
airport-vincent	7c:d1:c3:d1:a1:96	1	-58dbm	AES	802.11b/g/	☐
Eric Lee	a0:f3:c1:b4:3d:e9	1	-32dbm	NONE	802.11b/g/	☐

Figure 6-2-6 AP Scan Screen

Click **Apply** button to save the new settings. It will fill up **ESSID** and **MAC address** automatically.

Here it's also recommended to use a static IP address. Set up a static IP address 192.168.88.251 for WG-500P M. **After applying the setup, WG-500P M should connect to LAN network of RouterOS wirelessly.**

Figure 6-2-7 Wireless to MikroTik RouterOS Screen

Step 6: Bypassed setting in MikroTik RouterOS

In order to use WG-500P M, you have to set WG-500P M as a bypassed device first, so that WG-500P can connect to MikroTik RouterOS without authentication.

Find **IP/ hotspot / IP binding** in MikroTik RouterOS. Enter the **IP address** of WG-500P M (for instance, 192.168.88.251 here). Set **Type** as **bypassed**.

#	MAC Address	Address	To Address	Server
0	P	192.168.88.242		
1	P	192.168.88.100		
2	P	192.168.88.237		
3	P	192.168.88.251		

Figure 6-2-8 MikroTik RouterOS Setting

Note: Please refer to <http://wiki.MikroTik.com/wiki/Hotspot> for more information.

Step 7: Browse web interface by its IP address (http://192.168.88.251 for example)

Please find **Account Generator - MikroTik RouterOS setting**. Entering **RouterOS IP address**(for instance, 192.168.88.1), **API port** (8728 by default), and **Username/Password**.

MIKROTIK ROUTEROS SETTING	
IP Address	192.168.88.1
API Port	8728
MIKROTIK Device Login Information	
Username	admin
Password	*****
Apply	

Figure 6-2-9 MikroTik RouterOS Setting Screen

Step 8: Setup in MikroTik RouterOS

Regarding API, it may be required to enable API service. Please find IP/Service in MikroTik RouterOS, and enable it.

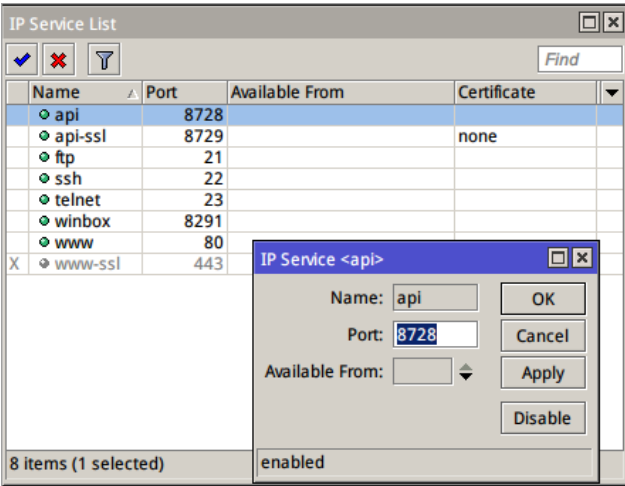


Figure 6-2-10 MikroTik RouterOS Setting Screen

Note: Please refer to <http://wiki.MikroTik.com/wiki/Manual:IP/Services> for more information.

After the Apply, please find **System Status. MikroTik RouterOS Connection** should show **OK**, if the connection is successfully established.

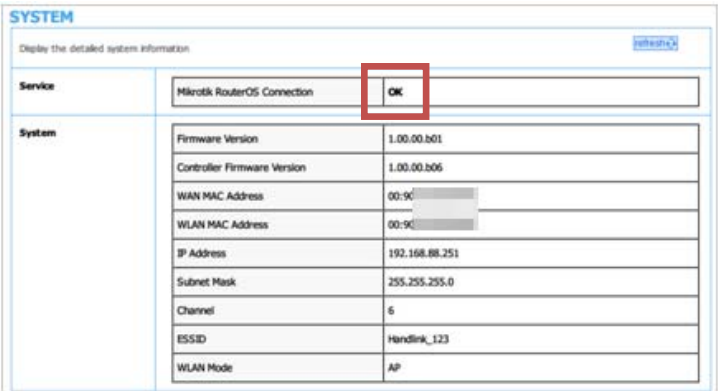


Figure 6-2-11 System View Screen

Step 9: Binding User Manager Profiles on the buttons. Check **Account Generator - Three-button printer**. The Profiles should show up after queried from MikroTik User Manager.

Figure 6-2-12 Three Button Printer Screen

The queried data will be corresponding to what you set in **MikroTik User Manager - Profile** in MikroTik RouterOS.

Figure 6-2-13 MikeoTik RouterOS Setting Screen

Step 10: Please find **Account Generator - Account Printout**. You can customize the text on the ticket. And then try to printout the ticket.

Note: These steps assume that you already have proper profiles in **MikroTik User Manager**. It doesn't include the instructions of how to set up **IP/Hotspot** function and **User Manager** in **MikroTik RouterOS**.

6-3 Interface Setting

WG-500P M provides two types to connect MikroTik Router OS gateway: **“Ethernet to MikroTik RouterOS”** and **“Wireless to MikroTik RouterOS”**. You can choose one of the both.

1. MikroTik RouterOS Setting
2. Account Generator
3. Account Printer

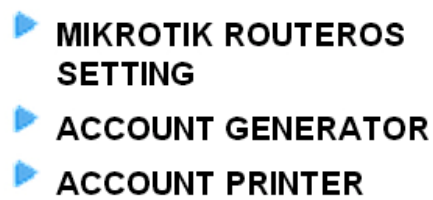


Figure 6-3-1 Account Generator Item

6-3-1 Ethernet to MikroTik RouterOS

Select the appropriate Internet connection type to connect to your ISP.

6-3-1-1 Uplink IP Setting

DHCP Client

The device can work as a DHCP client. This allows the device to obtain the IP address and other TCP/IP settings from your ISP. If your xDSL/Cable comes with this feature, please enable Use DHCP Client.

Static IP Setting

If **Static IP Setting** is selected, then this screen will appear. Enter the IP address information provided by your ISP.

INTERFACE SETTING

Ethernet to MikroTik RouterOS

Uplink IP Setting :

☐ DHCP IP

☒ Static IP

IP Address:	192.168.8.10
Subnet Mask:	255.255.255.0
Gateway IP address:	(option)
DNS Server:	(option)
Secondary DNS Server:	

Figure 6-3-2 Ethernet to MikroTik RouterOS – Uplink IP Setting Screen

Item	Default	Description
IP Address		Enter the IP address.
Subnet Mask		Enter the subnet mask for the IP address.
Gateway IP Address		Enter the Gateway IP Address.
Primary DNS Server	Empty	Enter the primary DNS server IP address for the xDSL/Cable connection.
Secondary DNS Server	Empty	Enter the secondary DNS server IP address for the xDSL/Cable connection. If the primary DNS Server IP were not available, meanwhile, Secondary DNS Server IP would start in the same time.

6-3-1-2 Wireless AP Mode Setting

This function allows you to set up wireless AP mode.

Wireless AP Mode Setting:	
General Setting	Wireless Connection : Enable
	Channel : 6
	802.11 Mode : 802.11n + 802.11g + 802.11b
	Channel Width : Auto 20/40 MHZ
ESSID Setting	ESSID : Handlink (Max=32)
	Broadcast : Enable
Security Setting	☒ Open ☐ WPA ☐ WPA2 ☐ MixMode Group
Beacon Interval	100 (msec, range:1~1000, default:200)
RTS Threshold	2342 (range:256~2342, default:2342)
Fragmentation Threshold	2346 (range:256~2346, default:2346, even numbers only)
Preamble Type	☐ Short Preamble ☒ Long Preamble ☐ Dynamic Preamble
☒ Wireless to MikroTik RouterOS	
Apply	

Figure 6-3-3 Ethernet to MikroTik RouterOS – Wireless AP Mode Setting Screen

Item	Default	Description
General Settings		
Wireless Connection	Enable	Enable or Disable Wireless connection
Channel	6	Select the channel ID for wireless connection.
802.11 Mode	802. 11n + 802.11g + 802.11b	Enter the 802.11 Mode for wireless connection.
Channel Width	Auto 20/40 MHZ	Select the Channel Width for wireless connection.
ESSID Setting		
ESSID name	Handlink	The ESSID is the unique name that is shared among all points in a wireless network. It is case sensitive and must not exceed 32 characters.
Broadcast	Enable	This allows you to show or hide the ESSID name when users search the Wi-Fi signal.
Security Settings		

WG-500P & WG-500P M Hotspot in a Printer

Item	Default	Description
Security	Open	Select Open to allow wireless station to communicate with the device without any data encryption. Select WPA / WPA2 / MixMode for data encryption.
Key Rekeying	86400 Seconds	Enter a number in the field to set the force re-keying interval.
Use WPA or WPA2 with Pre-shared Key	Disable	
Pre-Shared Key	Empty	Enter a pre-shared key from 8 to 63 case sensitive ASCII characters.
Use WPA or WPA2 with 802.1x	Disable	
RADIUS Server IP/Domain	Empty	Enter the RADIUS server IP address or domain name. The maximum allowed characters length is 15.
Authentication Port	Empty	Enter the authentication port number. The allowed numbers are from 0 to 65535.
Share Secret Key	Empty	Enter the RADIUS secret key
Beacon Interval	100	This value valid range is 1 to 1000 indicates the frequency interval of the beacon.
RTS Threshold	2342	This value valid range is 256-2342. This setting determines the packet size at which the WG-500P M issues a request to send (RTS) before sending the packet. A low RTS Threshold setting can be useful in areas where many client devices are associating with the WG-500P M, or in areas where the clients are far apart and can detect only the WG-500P M and not each other.
Fragmentation Threshold	2436	This setting determines the size at which packets are fragmented. Enter a setting ranging from 256 to 2432 bytes. Use a low setting in areas where communication is poor or where there is a great deal of radio interference.
Preamble Type	Long Preamble	The preamble type is a section of data at the head of a packet that contains information the WG-500P M and client devices need when sending and receiving packets. The setting menu allows you to select a long, short or dynamic preamble type.

6-3-2 Wireless to MikroTik RouterOS

If you choose “Wireless to MikroTik RouterOS” mode, the WG-500P M will work as an AP client. You can click “AP scan” in search of Wi-Fi signal.

INTERFACE SETTING

☐ Ethernet to MikroTik RouterOS

☒ Wireless to MikroTik RouterOS

ESSID	Handlink	AP SCAN
AP MAC (optional)		
Pre-shared Key	1234567890	
IP Setting	☐ DHCP IP ☐ Static IP	

Figure 6-3-4 Wireless to MikroTik RouterOS Screen

Item	Default	Description
ESSID name	Handlink	The ESSID is the unique name that is shared among all points in a wireless network. It is case sensitive and must not exceed 32 characters. If you are not aware of the ESSID name, click "AP SCAN" to search existing Wi-Fi signal.

AP SCAN

The screenshot shows the 'AP SCAN RESULT' interface. It contains a table with the following data:

SSID	MAC ID	Channel	RSSI	Encryption	802.11 mode	Select
Handlink_Hotspot	00:19:BE:00:D7:A3	10	-30 dBm	on	802.11n	☒
wicatch_demo	00:90:0E:01:41:F2	6	-45 dBm	on	802.11n	☐
Supernifi_network	00:90:0E:02:48:AC	11	-25 dBm	off	802.11n	☐

Buttons: Refresh (top right), Apply (bottom right)

Figure 6-3-5 AP Scanning Screen

SSID	Show all ESSID names that are shared among all points in a wireless network.	
MAC ID	Show each ESSID MAC ID.	
Channel	Show each ESSID channel.	
RSSI	Show each RSSI.	
Encryption	“on” means this ESSID is with encryption and “off” without it.	
802.11 mode	Show each ESSID 802.11 mode.	
Select	Select one of the existing ESSID names that are shared among all points in a wireless network.	
AP MAC(optional)	empty	The MAC address of the AP. For input the device MAC address, please use this format such like"0050BA8D2296".
Pre-shared Key	1234567890	Enter a pre-shared key from 8 to 63 case sensitive ASCII characters.
IP Setting		
DHCP Client	The device can work as a DHCP client. This allows the device to obtain the IP address and other TCP/IP settings from your ISP. If your xDSL/Cable comes with this feature, please enable Use	

	DHCP Client.	
Static IP Setting	If Static IP Setting is selected, then this screen will appear. Enter the IP address information.	
IP Address		Enter the IP address.
Subnet Mask		Enter the subnet mask for the IP address.
Gateway IP Address		Enter the Gateway IP Address.
Primary DNS Server	Empty	Enter the primary DNS server IP address for the xDSL/Cable connection.
Secondary DNS Server	Empty	Enter the secondary DNS server IP address for the xDSL/Cable connection. If the primary DNS Server IP were not available, meanwhile, Secondary DNS Server IP would start in the same time.

Click **Apply** button, the alert dialog box appears. Click on **Confirm** to save the new settings.

6-4 Account Generator

This allows the service provider or administrator to set up the account printer.

1. MikroTik RouterOS Setting
2. Account Generator
3. Account Printer

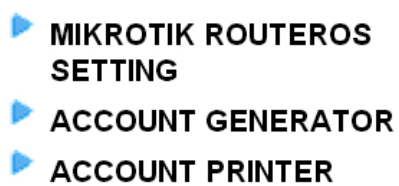


Figure 6-4-1 Account Generator Screen

6-4-1 MikroTik RouterOS Setting

This allows you to set up MikroTik RouterOS device.

MIKROTIK ROUTEROS SETTING

IP Address	192.168.88.1
API Port	8728
MIKROTIK Device Login Information	
Username	admin
Password	
Apply	

Figure 6-4-2 MikroTik RouterOS Setting Screen

Item	Default	Description
IP Address	192.168.88.1	Enter the IP address of the MikroTik RouterOS device.
API Port	8728	Enter the API port of the MikroTik RouterOS device
MIKROTIK Device Login Information		
Username	admin	Enter the user name of the MikroTik RouterOS device.
Password		Enter the user password of the MikroTik RouterOS device.

6-4-2 Account Generator

You should set up those billing profiles for the account generator. WG-500P M provides 3 buttons for each billing profile. You can click the button to print out the ticket for ONLY one time.

ACCOUNT GENERATOR

Three- Button Printer	
Button A	User Manager : {01} 30 minutes , 30 minutes , \$1.00 ▼
Button B	User Manager : {01} 30 minutes , 30 minutes , \$1.00 ▼
Button C	User Manager : {01} 30 minutes , 30 minutes , \$1.00 ▼
Username Length & password length setting	
Length	4 ▼

[Apply](#)

Figure 6-4-3 Account Generator Screen

Item	Default	Description
Three- Button Printer		
Button A~C		Define each button's billing profile. Select one billing profile by clicking in the list box.
Username Length & password length setting		
Length	4	Select the length for the username & password.

6-4-3 Account Printer

This function allow service provider to specified text of account printout. If you would not like to show those texts, please cancel that in the check box.

ACCOUNT PRINTER

☒ Title:	☒ Format 1 : Welcome! (Max.=75) ☐ Format 2 : Welcome! (Max.=75)
☒ Subtitle:	☒ Format 1 : WG-500P M (Max.=60) ☐ Format 2 : WG-500P M (Max.=60)
Username:	Username: (Max.=24)
Password:	Password: (Max.=24)
☒ Usage Time:	Usage Time: (Max.=24)
☒ Price:	Price: (Max.=24)
☒ Additional Label 1:	(Max.=24) Value : (Max.=24)
☒ Additional Label 2:	(Max.=24) Value : (Max.=24)
☒ Print out Time:	Format : yyyy/mm/dd HH : mm : ss (HH:24h hh:12h tt:AM/PM)
☒ Hotspot Name(Optional)	(Max.=24)
☒ Ending:	Thank you! (Max.=24x10)

Figure 6-4-4 Account Printer Screen

Item	Default	Description
Title	Welcome!	Enter the title name of subscriber account printer page. You can choose one format of the two. The maximum allowed characters length is 75.
Subtitle	WG-500P M	Enter the subtitle name of subscriber account printer page. You can choose one format of the two. The maximum allowed characters length is 80.

WG-500P & WG-500P M Hotspot in a Printer

Item	Default	Description
Username	Username:	Enter the text of the "username" printed out on the ticket. The maximum allowed characters length is 24.
Password	Password:	Enter the text of the "password" printed out on the ticket. The maximum allowed characters length is 24.
Usage Time	Usage Time:	Enter the text of the "usage time" printed out on the ticket. The maximum allowed characters length is 24.
Price	Empty	Enter the text of the "price" printed out on the ticket. The maximum allowed characters length is 24.
Additional Label 1/2	Empty	Enter the text of the "additional label" printed out on the ticket. The maximum allowed characters length is 24. And then, enter the value of it.
Print out Time	yyyy/mm/dd; HH:mm:ss	Select time format to set the system date and time.
Hotspot Name(Optional)	Empty	Enter the name of this hotspot. The maximum allowed characters length is 24.
Ending	Thank you!	Enter the ending texts on the ticket.

6-5 System Status

The System Status displays current system basic information including the Mikrotik RouterOS connection, Firmware Version, Controller Board Firmware, LAN MAC Address, WLAN MAC Address, IP Address, Subnet Mask, Channel, ESSID, and WLAN Mode. You can click “**refresh**” button to renew the system.

SYSTEM		
Display the detailed system information refresh ↻		
Service	Mikrotik RouterOS Connection	OK
System	Firmware Version	1.00.00.b01
	Controller Firmware Version	1.00.00.b06
	WAN MAC Address	00:90:0
	WLAN MAC Address	00:90:0
	IP Address	192.168.88.251
	Subnet Mask	255.255.255.0
	Channel	6
	ESSID	Handlink_123
	WLAN Mode	AP

Figure 6-5-1 System View Screen

6-6 System Tools

This allows service provider or administrator to process Firmware upgrade, change password and backup or restore configuration.

1. System Account
2. Ping Command
3. Firmware Upgrade
4. Reset
5. Restart
6. Logout

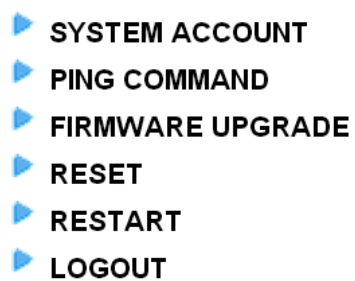


Figure 6-6-1 System Tools Item

6-6-1 System Account

Use the System Account screen to change the system accounts.

SYSTEM ACCOUNT

Account username and password setting

You can reset the username and password and it will activate at the "NEXT TIME" login.

Username :

Password :

Confirm :

[Apply](#)

Figure 6-6-2 System Account Setting Screen

Item	Description
Username	The username can consist of up to 20 alphanumeric characters and is sensitive.
Password	The password can consist of up to 20 alphanumeric characters and is sensitive.
Confirm	The password for confirmation

6-6-2 Ping Command

The Ping function can check the WG-500P M networking connective or not.

PING

PING

Execute a ping command to test the availability of a remote system. Enter an IP address.

[Ping](#) [Clear](#)

Figure 6-6-3 Ping Command Screen

Item	Description
IP or URL	Enter the IP address or the URL link.

6-6-3 Firmware Upgrade

The Firmware Upgrade menu loads updated firmware to be permanent in flash ROM. The download file should be a binary file from factory; otherwise the agent will not accept it. After downloading the new firmware, the agent will automatically restart it.

Normal Code Firmware

FIRMWARE UPGRADE

NORMAL CODE FIRMWARE

CONTROLLER BOARD FIRMWARE

To upgrade firmware, click **Select** to locate the firmware file, or specify a remote TFTP server and file name, and click **Apply**.

Local PC File Path :

Select...

Remote TFTP Server IP Address :

File Name :

Apply

Figure 6-6-4 Normal Code Firmware Upgrade Setting Screen

Item	Default	Description
Local PC File Path	Empty	Enter the file name and location in the Local PC File Path field.
Remote TFTP Server IP Address	Empty	Enter the IP address of TFTP Server.
File Name	Empty	Enter the file name in the File Name field.

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Controller Board Firmware

FIRMWARE UPGRADE

NORMAL CODE FIRMWARE

CONTROLLER BOARD FIRMWARE

To upgrade the Controller Board Firmware, click Select to locate the file and click "Apply".

Local PC File Path :

Select...

Apply

Figure 6-6-5 Controller Board Firmware Upgrade Setting Screen

Item	Default	Description
Local PC File Path	Empty	Enter the file name and location in the Local PC File Path field.

Note:

1. Before downloading the new firmware, users must save the configuration file for restore configuration parameters of the device.
2. Do not turn the power off during the upgrade process. This will damage the unit.

6-6-4 Reset

Reset the system setting back to factory defaults.

RESET

Reset the system setting back to factory defaults.


Figure 6-6-6 Reset Screen

Click **Apply** button to reset the system.

6-6-5 Restart

If your WG-500P M is not operating correctly, you can choose this option to display the restart WG-500P M screen. Clicking the apply button restart the WG-500P M, with all of your settings remaining intact.

RESTART

Click Apply to restart the system. If you do not wish to restart the system, choose a menu option to leave this page.


Figure 6-6-7 Restart Screen

Click **Apply** button to restart the system.

6-6-6 Logout

If you would like to leave the configuration page, please click **Apply** to exit.

LOGOUT

Click Apply to log out. If you do not wish to log out, choose a menu option to leave this page.


Figure 6-6-8 Logout Screen

Appendix A Signal Connection Arrangements

RJ-45 Ethernet Port

The WG-500P RJ-45 Ethernet port can connect to any networking devices that use a standard LAN interface, such as a Hub/Switch Hub or Router. Use unshielded twisted-pair (UTP) or shield twisted-pair (STP) cable to connect the networking device to the RJ-45 Ethernet port.

Depending on the type of connection, 10Mbps or 100Mbps, use the following Ethernet cable, as prescribed.

10Mbps: Use EIA/TIA-568-100-Category 3, 4 or 5 cables. 100Mbps: Use EIA/TIA-568-100-Category 5 cable.

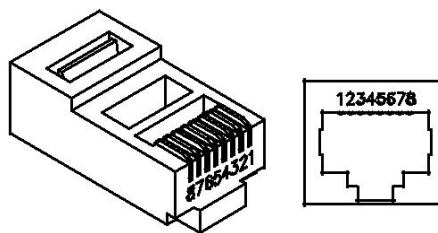


Figure RJ-45 Connector and Cable Pins

Note: To prevent loss of signal, make sure that the length of any twisted-pair connection does not exceed 100 meters.

Appendix B Regulations/EMI Compliance

FCC Regulatory Statement

Part 15-Class B compliant device

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including that which may cause undesired operation.

This equipment has been test and found to comply with the limits for a computing device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. The equipment and the receiver should be connected the outlets on separate circuits.
4. Consult the dealer or an experienced radio/television technician for help.

Changes or modification not expressly approved be the party responsible for compliance could void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

NCC Statement

根據 NCC 低功率電波輻射性電機管理辦法規定:	
第十二條	經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
第十四條	低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。 前項合法通信，指依電信法規定作業之無線電通信。 低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

LIMITED WARRANTY

WG-500P

What the warranty covers:

We warrant its products to be free from defects in material and workmanship during the warranty period. If a product proves to be defective in material or workmanship during the warranty period, we will at its sole option repair or replace the product with a like product with a like product. Replacement product or parts may include remanufactured or refurbished parts or components.

How long the warranty is effective:

The WG-500P is warranted for one year for all parts and one year for all labor from the date of the first consumer purchase.

Who the warranty protects:

This warranty is valid only for the first consumer purchaser.

What the warranty does not cover:

1. Any product, on which the serial number has been defaced, modified or removed.
2. Damage, deterioration or malfunction resulting from:
 - a. Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
 - b. Repair or attempted repair by anyone not authorized by us.
 - c. Any damage of the product due to shipment.
 - d. Removal or installation of the product.
 - e. Causes external to the product, such as electric power fluctuations or failure.
 - f. Use of supplies or parts not meeting our specifications.
 - g. Normal wears and tears.
 - h. Any other cause that does not relate to a product defect.
3. Removal, installation, and set-up service charges.

How to get service:

1. For information about receiving service under warranty, contact our Customer Support.
2. To obtain warranted service, you will be required to provide (a) the original dated sales slip, (b) your name, (c) your address (d) a description of the problem and (e) the serial number of the product.
3. Take or ship the product prepaid in the original container to your dealer, and our service center.
4. For additional information, contact your dealer or our Customer Service Center.

Limitation of implied warranties:

THERE ARE NOWARRANTIED, EXPRESSED OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION CONTAINED HEREIN INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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Exclusion of damages:

Our LIABILITY IS LIMITED TO THE COST OF REPAIR OR REPLACEMENT OF THE PRODUCT. We SHALL NOT BE LIABLE FOR:

1. DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECTS IN THE PRODUCT, DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE OF THE PRODUCT, LOSS OF TIME, LOSS OF PROFITS, LOSS OF BUSINESS OPPORTUNITY, LOSS OF GOODWILL, INTERFERENCE WITH BUSINESS RELATIONSHIPS, OR OTHER COMMERCIAL LOSS, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.
2. ANY OTHER DAMAGES, WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE.
3. ANY CLAIM AGAINST THE CUSTOMER BY ANY OTHER PARTY.